Calcutta University Commission

1917—1919

SELECTED CHAPTERS

OF THE

REPORT

OF THE

Calcutta University Commission



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FOREWORD.

IN order to give as wide a circulation as possible to the views of the Calcutta University Commission, the Government of India have decided to publish a cheap popular Edition of the Report, containing some of the leading chapters. The analyses of the chapters printed in this volume give a fairly complete idea of the views of the Commission, while the selected chapters form a connected whole. The notes written by Dr. Zia-ud-Din Ahmad and Dr. J. W. Gregory will be found at the end of Volume V of the Report.

G. ANDERSON,

Secretary, Calcutta University Commission.

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Section II. Recent conferences on agricultural education in India.—(16) Judgment of the present Agricultural Adviser to the Government of India on smallness of results of agricultural education. Three conferences on the subject in the last three years, at Pusa, Simla, and Poona. (17—18) Conference at Pusa, under presidency of Sir Claude Hill, February 1916. (19) Conference at Simla, under presidency of Sir Claude Hill, June 1917. (20) Conference at Poona; forming part of proceedings of Board of Agriculture, December 1917. (21) Educational policy laid down as a result of the three conferences: (a) direct instruction of persons engaged in agriculture to be given at present by means of demonstration farms; a small number of 'middle' agricultural schools to be started; (b) expenditure on agricultural education not to be at the expense of other activities of the Board of Agriculture; (c) the development of agricultural colleges desirable, but the development and the relation of agricultural colleges with local universities should depend on local conditions. Passage from memorandum by Agricultural Adviser to Government of India on provision of colleges for training of Indians for superior grades of Department of Agriculture. (22) Opinions of expert witnesses from Pusa; Mrs. G. L. C. Howard, Mr. F. M. Howlett, Mr. E. J. Butler.

Section III. The prospects of higher agricultural education in Bengal.—(23) Desirability of one or more Imperial institutes (Pusa being taken as a type) for agricultural research on a large scale. Existence of such institutes compatible with provincial agricultural colleges for teaching and research, as proposed in 1905. Question whether 'agricultural development' of Bengal justifies creation of one or more such colleges, and relationship of such college with the local University. (24) The special characteristics of agriculture in Bengal: (a) the crops, with their comparatively small variety; (b) alleged impoverishment of soil; use of primitive methods; (c) small size of great majority of holdings; (d) diminution in margin of profit available for its improvement with increase in number of persons dependent on soil; (e) alleged ignorance of cultivators; (f) alleged distaste for cultivation produced by 'education'; (g) comparative backwardness in development of demonstration farms. (25) Size of estates and holdings; bearing of this question on employment of agricultural experts. Views of Mr. L. Birley. Agricultural experts more likely in Bengal to be

employed by community than by individuals. (26) Employment of agricultural experts in connexion with management of estates under Court of Wards. Question of education of wards in agricultural colleges. Question of guardianship of ward's estates by officers specially trained in agriculture and estate management. (27) Demonstration farms in Bengal. (28) Influence of education on cultivating classes. Influence of caste on agriculture. Possible action of the University in overcoming prejudices against cultivation due to (i) caste, and (ii) 'education.' (29) Widespread view that agriculture should be taught by the University. Views of Mr. J. N. Gupta, of the Maharajadhiraja Bahadur of Burdwan, and of Mr. S. Milligan. (30) Summary of arguments for and against giving agricultural education of a university character in Bengal. (31) Forestry. (32) Sericulture. (33) Veterinary science. The Bengal Veterinary College.

Chapter XXVI.—Training in Technology (other than Engineering, Mining, Architecture and Agriculture) and in Commerce.

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Section II. Existing provision for technological and commercial training in the Bengal Presidency.—

A. The Serampore Weaving Institute.—(4) Object. Classes of students. Branch schools. Curriculum. Examinations. (5) Numbers and cost. (6) Employment of ex-students. (7) Mr. Hoogewerf on the need for organising the hand-weaving industry of Bengal.

B. The Bengal schools of art.—(8—9) The Government School of Art, Calcutta. (10) Other schools of art.

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Section III. Technical scholarships tenable outside India.—(17—18).

Section IV. Future provision for technological instruction in Bengal; its difficulties: its necessity; schemes under consideration; evidence in regard to these schemes and to the subject generally.—

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B. The bread problem.—(25) The economic, social and political necessity for providing an outlet into industry and commerce for the middle classes of Bengal and the condemnation of the existing educational system as inadequate to present needs. Mr. P. N. Dutt's evidence. (26) The views of Sir Ali Imam. (27) Mr. Justice T. V. Seshagiri Iyer, Mr. Abdul Jalil and Mr. Becharam Lahiri. (28) Mr. Atul Chandra Sen. (29) Mr. H. Sharp. (30) Mr. J. R. Cunningham.

C. *The Calcutta University Commercial scheme, criticisms of the Calcutta School of Commerce and evidence on proposals for commercial education.*—(31) The Calcutta University scheme. (32) The difficulty of providing practical office training. (33) The proposal to establish a university college of commerce. (34) Criticisms of the Government Commercial Institute. (35) Comparative failure of the school ascribed to want of connexion with the Calcutta University. (36) Mr. C. J. Hamilton's view. (37-38) The views of Mr. P. W. Newson, Mr. W. E. Crum and Mr. Alastair Cameron on the value of an academic commercial training. (39) Mr. Girindra Kumar Sen on the danger of commercial degrees.

D. *The Calcutta Technological Institute scheme.*—(40) The proposal of Mr. J. G. Cumming, 1908. The decision to remove the Civil Engineering College to Ranchi. The Calcutta Committee of 1912. The report of Lieutenant-Colonel Atkinson and Mr. Dawson. (41) The proposals of the Government of Eastern Bengal and Assam. (42—43) The Calcutta Technological Institute scheme as framed by Messrs. Nathan, Küchler and Everett, 1913.

E. *The Calcutta University technological education scheme.*—(44) Proposed licence and degree courses in dyeing, tanning and technological chemistry.

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CHAPTER XXVII.—GOVERNANCE AND ADMINISTRATION OF THE UNIVERSITY.

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Section II. The Senate.—(3) The composition and powers of the Senate in 1857. (4) Introduction of the elective principle in 1890. (5) The Universities Commission of 1902 found that the Senate was too large and that a Fellowship was often awarded without due regard to the qualifications of the recipient. (6) Recommendations of the Commission. (7—8) Views of Sir Gooroo Dass Banerjee. (9—11) The Universities Act of 1904; composition and powers of the Senate; and (12) of the Senates of older Indian universities. (13) General dissatisfaction with the present arrangements. (14) Defects of the Senate. (15) It is an unrepresentative body, there being no direct representation of teachers or colleges. (16—17) Evidence in favour of such representation. (18) No representation of other learned professions, of commercial or agricultural interests, or of the Calcutta Corporation. (19) Inadequate representation of the Muslim community, (20) of certain provinces, and (21) divisions. (22) Evil effects arise from the nomination of 80 per cent. of the Ordinary Fellows, (23) though the fear of Sir Gooroo Dass Banerjee of undue pressure by Government have not been fulfilled in Bengal. (24) But the practice of nomination on so extensive a scale has created a sense of irresponsibility. (25) Some correspondents point to unfortunate results of election, (26) but the majority advocate an increase in the elected members. (27—28) Some suggest increased representation of registered graduates, (29) others, representation of the Muslim community, (30) others, representation of industrial, commercial, and other interests. (31) The composition of the Senate depends largely upon its functions (32) which, being very varied, prevent many men from accepting nomination or election, (33) and results in confusion and waste of time. (34) The remedy is to assign to the expert and to the layman each his proper functions.

Section III. The administration of the University.—(35) Scope of the section. (36) The Chancellor and his duties. (37) The peculiar position of the Rector. (38—39) The Vice-Chancellor is overburdened with duties; (40) suggestions for improvement. (41) The Registrar and the Inspector of Colleges. (42—43) The evidence of Dr. Brühl and our own investigations show that (44) the university offices are inconveniently located, (45) the staff is insufficient, and (46) the Registrar is overburdened with detail. (47—48) Constitution and power of the Syndicate in 1857. (49) Recommendations of the Universities Commission of 1902. (50—53) The Universities Act of 1904; composition and powers of the Syndicate. (54) Defects of the Syndicate; election of doubtful utility. (55) Inadequate representation of Muslim interests. (56) The character of business submitted to the Syndicate is open to objection, (57) as routine matters are intermixed with matters of great importance. (58) The meetings are therefore frequent and prolonged, and (59) the existing system concentrates in the executive the work rather of discussion than of deliberate decision. (60—61) There is therefore a need of a systematic redistribution and reclassification of university business.

Section IV. Academic organisation.—(62) The absence of any authoritative direction [illegible] scholars. The Faculties, and (63—64) Boards of Study (65) are not exclusively expert bodies; and they tend to form water-tight compartments.

Section V. Supervision of the colleges.—(66) These radical defects in university organisation react unfavourably on the colleges. (67) Rules for affiliation and disaffiliation were loosely defined by the Act of 1857. (68—69) Recommendation of the Universities Commission, 1902. (70—71) The Universities Act of 1904 insists on the attendance by each student at a regular course of lectures in an affiliated

college. (72—74) Procedure in the case of affiliation. (75—76) Recommendation of the Universities Commission for disaffiliation of colleges. (77) Inspection of colleges; recommendation of the Universities Commission, and (78) terms of the Universities Act of 1904. (79) Though improvements have been made, (80—81) the rules for inspection are too rigid. (82—83) The University is unable to exercise adequate financial control over the colleges, especially as it has no funds with which to promote the efficiency of colleges.

Section VI. Essentials of university organisation.—(84) A university needs for its effective governance three types of organs to secure (*a*) contact with the community, (*b*) statesmanlike guidance, and (*c*) authoritative direction by its teachers in academic matters. (85) No organisation answering to any of these is to be found in the University of Calcutta.

Section VII. New departures in Indian university organisation.—(86) The new universities give a larger voice to their teachers in matter of academic policy. (87) Mysore University; (88) Patna University; (89) Hindu University, Benares.

CHAPTER XXVIII.—THE RELATIONS BETWEEN GOVERNMENT AND THE UNIVERSITY.

Section I. The extent of Government control.—(1) The intimacy of the relations between the Indian universities and Government. (2) Their governing bodies are mainly controlled by Government. (3) They are mainly financed by Government. (4) Many of the university teaching institutions are provided and managed by Government. (5) In regard to secondary education Government and university functions are intertwined. (6) Most of the students aim at Government service. (7) Government control and influence are thus very close. (8) A majority of our correspondents desire greater autonomy.

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training. (5) Improved opportunities for study and research in ancient Indian history and culture. (6—8) Proper position of indigenous systems of medicine in the plan of university studies. (9—11) Scientific study of the vernaculars; development of vernacular literature.

Section III. Islamic studies.—(12) The four stages of the Madrassah described. (13—21) *Reformed Madrassahs.*—(13) Curriculum of the Reformed Madrassahs. (14) Intermediate madrassah at Chittagong. (15) The examinations of the reformed madrassahs. (16—17) The Islamic Department should be included in the Faculty of Arts. (18—20) The courses of the Islamic Department of the Dacca University. (21) Anticipated results. (22—35) *The Calcutta Madrassah.*—(22) The Departments of the Madrassah. (23—25) The relation of the Calcutta Madrassah and the University of Calcutta. (26) Anglo-Persian Department of the Calcutta Madrassah should be developed as an intermediate college. (27) Relations between the Calcutta Madrassah and the proposed Islamia College. (28—30) The institution of a university diploma and a degree. (31) Examinations of the Calcutta Madrassah. (32—35) Anticipated results of the new scheme.

Chapter XLIII.—The Training of Teachers.

Section I. The universities and the secondary schools.—(1) Improvements in the teaching given in the high English schools necessary to the welfare and progress of the universities. (2) The establishment of departments of education at the Universities of Calcutta and Dacca recommended and their aims defined.

Section II. The systematic study of the science and art of education an important function of a university.—(3) Significant changes in the educational thought of the West. (4) The valuable service rendered by the universities in guiding the new educational movement. (5) The part which may be played by the Indian universities in the study of educational problems. (6) The university departments of education at Calcutta and Dacca should associate with themselves in the study of education many other departments of university work. (7) And each should have a demonstration school for the practical trial of new methods of teaching, new combinations of school-subjects, etc. (8) Library, publications and facilities for research. (9) The assistance which could be given by the new departments to the Board of Secondary and Intermediate Education and in the guidance of public opinion on educational subjects.

Section III. The universities and the professional training of teachers.—(10) Close co-operation between the new departments of education and the training colleges indispensable. (11) The position at Dacca comparatively simple: (12) at Calcutta, more complex. The department of education, with a large model school for the students' practice and a small demonstration school for experiments, must be centrally placed. (13) The present accommodation of the David Hare Training College in College Square inadequate. (14) The varied work of the department of education makes it indispensable that new buildings should be provided in the immediate neighbourhood of the University. (15) The David Hare Training College, when transferred to a suburban site in Ballygunj, will not be suitable as the headquarters of the university department of education. (16) But the new training college for men teachers in Ballygunj will be needed in addition to a university training college in central Calcutta, and the plan already approved should be carried into effect. (17) As a temporary arrangement, the training college in Ballygunj might be used as the university training college.

(18) In that case, some features of the plan should be reconsidered. (19) The distinction between a model school for practice and a demonstration school.

Section IV. The licence in teaching and the degree of bachelor of teaching.—(20) In the professional training of teachers the responsibilities of the University and of the Board of Secondary and Intermediate Education are closely intertwined. (21) Three essentials of a teacher's training. (22) The Board will be in a position to enable the schools to employ better qualified teachers, and at the new intermediate colleges students will receive a better preparation for their professional work. (23) The high school examination should not be accepted as a sufficient qualification for teaching in a recognised high English school. (24) Intermediate colleges should offer a course specially designed for students intending to enter the teaching profession. (25) Proposed training course of one year in preparation for a licence in teaching. (26) Requirements of the examination for the licence. (27) Weight to be given to knowledge of subjects taught in schools and to skill in teaching them. (28) Examination to be allowed in any subject forming part of the approved curriculum of a secondary school. (29) Bursaries should be offered, covering cost of the course at an intermediate college and at a training school for the licence in teaching. (30) The degree of bachelor of teaching: criticisms of present regulations. (31) The teaching given in the intermediate colleges and improvements in the high schools will raise the standard of the candidates' knowledge of school subjects. (32) The course for the B.T. should extend over one year, should include systematic practical work at a training college, and be simplified in its requirements as to the history of education. (33) Partly as a preparation for the B.T. course, partly on other educational grounds, a candidate should be allowed to offer the principles of education as one of the subjects for the pass B.A. degree. (34) Except for candidates already employed as teachers, the B.T. course should be post-graduate. (35) In most cases it should be taken before regular employment in a school. (36) Bursaries should be offered covering the cost of the course of training for the B.T. degree. (37) Special conditions on which teachers, who have not taken the B.A. or B.Sc. degrees, should be admitted to the examination for the B.T. (38) A teacher who has taken the B.T. alone should be allowed to present himself subsequently for the M.A. examination. The principles and history of education should be added to the list of subjects which any candidate may present for the M.A.

Section V. Future supply of trained teachers for secondary schools.—(39) Proposed annual supply of 700 trained teachers for service in the secondary schools, as a first step towards the provision which will ultimately be required. (40) Beneficial effect which this supply of trained teachers would have upon the schools. (41) But great improvements in the salaries and prospects of teachers indispensable; estimated annual cost of such a reform: its remunerative character. (42) At a later stage recognised schools should be required to appoint only trained teachers to their staffs.

Section VI. The chief functions of the new training colleges.—(43) The improvement of methods of class-teaching; (44) the diffusion of a new idea of corporate life in schools. (45) The study and practical trial of new forms of school-curriculum.

Chapter XLIV.—Medical Education.

Section I. Introductory.—(1—3) General questions. The question of medical teaching at Dacca discussed in Chapter XXXIII.

Section II. Reorganisation of the teaching of the preliminary scientific studies for university course.—(5—10) Necessity and difficulties of such reorganisation. Difficulties of standard arising from the raising of the standard of the university entrance examination. Question of provision of the preliminary scientific course at intermediate colleges. (11) Proposed transference of preliminary scientific course from Calcutta Medical College to one or more institutions in Faculty of Science. (12) Views of the Public Services Commission. (13—17) Discussion of various difficulties involved in such transference. Question of the 'military' students. Question of concurrent provision for students in agriculture.

Section III. Further provision for undergraduate teaching, research and post-graduate instruction in Calcutta.—(18) Further provision for research in physiology. (19) Department or institute of public health. (20) Teaching of bacteriology. (21—27) Proposed chairs of pharmacology and history of medicine; the University cannot teach the Ayurvedic or Unani systems of medicine, but a scientific study of these systems should be made in connexion with these chairs. (28) Chair of mental diseases. (29) Chair of dermatology and syphilology. (30) Chair of diseases of the ear, nose and throat. (31) Lectureship in X-rays. (32) Lectureship in electro-therapy. (33) School of dentistry. (34) Fellowships or studentships for medical research. (35—36) Post-graduate teaching in medicine.

Section IV. The university medical organisation.—(37—38).

Section V. Administration of the Calcutta Medical College.—(39—41) The Council and position of the principal. (42—44) Recruitment of the staff of the Calcutta Medical College. Views of the Public Services Commission. Question of general practice. The desirability of not diminishing the attractions of the Indian Medical Service.

Section VI. The Belgachia Medical College.—(45) Question of affiliation of the college up to the degree standard and of admission as a constituent college of the Teaching University of Calcutta after its reconstitution.

Section VII. The medical schools and the question of further provision for the needs of rural districts.—(46—49) Proposals made to increase number of medical practitioners in order to meet rural needs. Vernacular medical education a failure in the past; disability of medical men not knowing English; overcrowding of profession by university graduates. Endorsement of recommendation of Bengal Council of Medical Registration that there should be increase in the number or an expansion of the medical schools. (50—52) Question of providing at intermediate colleges teaching in physics and chemistry in connexion with the licentiateship course of the State Medical Faculty of Bengal, and teaching in physics, chemistry and biology in connexion with the membership course of that Faculty.

Chapter XLV.—Legal Education.

Section I.—Enumeration of fundamental points.—(1) Necessity for a high standard of legal education. (2) Standard of requisite preliminary general education should not be lowered. (3) Period of professional study should not be shorter than three years.

Section II. Deficiencies in the present system.—(4) Insufficiency of accommodation. (5) Inadequacy of arrangements for advanced studies in law. (6) Necessity of organisation of higher courses, though not required for examinations; reconsideration of terms of appointment to the Tagore Chair.

Section III. A special problem.—(7) Simultaneous study in two faculties; best method of guarding against the disadvantages sometimes incidental to such combination.

Chapter XLVI.—Engineering, Mining and Architectural Education.

Section I. Introductory.—(1) Scope of the chapter.

Section II. The Sibpur site.—(2—3) Improvement in the health conditions of Sibpur. View of the Sanitary Commissioner of Bengal that the site is healthy; improvements suggested by him. (4—5) Discussion of objections to Sibpur on grounds other than health. The Commission think the Engineering College should be maintained and developed for the provision of various branches of engineering at Sibpur and that its title should indicate the scope of the college.

Section III. The development of teaching in the Sibpur Engineering College.—

Civil Engineering.—(6) The college capable of turning out civil engineers of university rank. (7—12) Discussion of proposals of Public Works Department Reorganisation Committee in regard to maximum age of entrance, standard of admission and length of course. The Commission think that in view of the existing state of secondary education it is premature to lower the maximum age of admission to 19, and to reduce the college course from 4 to 3 years. (13) The Commission concur in the proposal of the Committee that courses in architecture should be given to engineering students. (14) View of Public Works Department Reorganisation Committee on separation of higher and lower grades of engineering teaching. (15) Necessity for specialist teachers in civil engineering.

Mechanical Engineering.—(16) Scarcity of Indian trained mechanical engineers. (17) Present averseness of average high caste Bengali for manual labour. (18—19) The need for Indian trained mechanical engineers. Views of sub-committee of Sibpur College, of the staff of the college, of the Indian Industrial Commission. (20) Plan of Committee of Institution of Civil Engineers of 1905 for engineering education. Modification of plan for Indian conditions suggested by the Indian Industrial Commission. Sibpur to provide special advanced courses of university character for students previously trained for four years in workshops with simultaneous instruction in technical schools. (21—23) The Commission think complete university courses in mechanical engineering should also be provided at Sibpur, fed by a double stream; some students taking workshop training before entering Sibpur College, some after; but that students should have workshop training for at least three years. (24) Additions to the staff and equipment of the Sibpur College will be required for a higher course of mechanical engineering.

Electrical Engineering.—(25) Views of Indian Industrial Commission as to small scope at present for electrical engineers. The development of the electrical department of the Sibpur College should be referred to its future governing body.

Mining Engineering.—(26) The projected colliery school at Dhanbaid: a secondary school. (27) The recommendations of the Indian Industrial Commission in regard to mining education. (28) The need for higher mining education in Calcutta. (29) Suggested co-operation of Sibpur with the Dhanbaid school. (30) The proposed Central Metallurgical Institute at Sakchi. (31) Number of mining students at Sibpur. (32) Recommendations for the extension of the mining department at Sibpur.

Separation of higher and lower grades of engineering education.—(33—34) The Commission concur in the views of the Public Works Department Reorganisation Committee and the Indian Industrial Commission that the training for the higher and lower grades of engineering posts should be separated, and that the Sibpur College should, when practicable, be restricted to training for the higher grades. The Dacca School might perhaps undertake the training of all the students of the subordinate grades.

Architectural education.—(35—37) Need for architectural teaching in Calcutta. Views of Public Works Department Reorganisation Committee, of Mr. H. A. Crouch, Consulting Architect to the Government of Bengal, of Mr. C. F. Payne, Chairman of the Calcutta Corporation. (38) Choice between School of Art and Sibpur as site for an architectural school. (39—40) Mr. Crouch's proposals for an architectural staff and course at Sibpur.

Residential arrangements.—(41) Need for more residential accommodation.

Facilities for Muslim students.—(42).

Section IV. Future government of Sibpur Engineering College and relations with the University of Calcutta.—(43—44) Sibpur at present a Government college. Powers of 'Governing Body.' Views of principal of the college as to the value of the governing body under the present system. (45—49) Proposal of members of the Sibpur staff that the connexion between the college and the University should be severed. The Commission do not concur in this proposal. (50) Proposal of staff to give to an enlarged 'Board of Visitors' control of engineering and diploma courses throughout Bengal, and power to confer degrees. (51) Dissent of some members of Sibpur staff from foregoing proposals. View of majority of the Commission's witnesses that universities should take part in higher technological training. (52) Proposals of the Indian Industrial Commission for government of engineering colleges, (53) in general accordance with views of the Commission. Need for concurrence of engineering firms in management of engineering colleges. (54—55) Views of Calcutta engineering firms on certain points connected with the future of engineering education in Calcutta. Views of the Commission as to the general constitution of a governing body for the Sibpur College. (56—58) Proposed *personnel* of governing body; its chairman; its secretary; the principal to be relieved of secretarial duties. (59—60) Powers and duties of governing body. (61—64) Appointment of staff. (65—66) Appointment of university professors and readers, and 'recognition' of teachers by University. (67) Question of Board of Visitors. (68) The Academic Board. (69—71) Relations of Sibpur College with the University of Calcutta. (72) Architecture as a university subject.

Section V. University degrees in engineering.—(73) Criticism of the new regulations for the engineering degree. (74) Discussion of question whether 'practical experience' should be made a pre-requisite for the degree and certified by the University, or whether certification of such experience should be left to a professional body.

Section VI. Some suggestions of the Indian Industrial Commission for the development of engineering education.—(75) Suggestions of Indian Industrial Commission considered with special reference to conditions in Calcutta. (76) The teaching of industrial chemistry and of chemical engineering. (77) Proposal to establish Imperial colleges of technology in engineering and in mineralogy and mineral technology. The Commission think the idea of combining engineering teaching both for Imperial and for local needs in a single institution should be considered. (78) The Commission endorse the plea of the Indian Industrial Commission for

the establishment, with Government encouragement and aid, of an Indian Institution of Engineers.

Appendix I.—Views of certain engineering firms in Calcutta in regard to the future of the engineering industries in Calcutta and the management of Sibpur Engineering College.

CHAPTER XLVII.—AGRICULTURAL EDUCATION.

(1) Reference to chapter on agricultural education in Part I of report. The Commission are of opinion that agricultural education of a university character should be provided in Bengal, and in the first place by the University of Calcutta, but that caution is necessary in regard to the number of students to be trained at first. (2) Scheme for agricultural education of a university character proposed by the Commission after consultation with Mr. Milligan, Director of Agriculture for Bengal; certain divergences between the scheme of the Commission and (*a*) the scheme of Mr. Milligan, and (*b*) the scheme recently laid before the Government of India by the Senate of the University of Calcutta. (3) Three main features of the scheme of the Commission: (i) training in Calcutta in sciences as applied to agriculture, for three years, after passing the intermediate college examination in certain subjects, (ii) training during vacations of such three years at a university farm near Calcutta, (iii) one or two years' subsequent training in a Government agricultural institute. A degree in science to be awarded to students at the end of the first three years' course, a degree in agriculture after the completion of the work under (iii) above. (4) Details of scheme: (*a*) chemistry, (*b*) botany, (*c*) zoology, (*d*) bacteriology, (*e*) geology, (*f*) agriculture, including agricultural economics and book-keeping. Question of place or places where teaching should be given. (5). Proposed University Agricultural Farm. (6) Proposed Government Agricultural Institute. Mr. Milligan's scheme. (7) Creation of University Faculty of Agriculture. (8) Differences between scheme of present Senate and the scheme recommended. (9) Necessity for limiting numbers at first. Enumeration of callings open to agricultural graduates. The supply of well trained men likely to increase the demand later. (10) Reason for selecting Calcutta as the first centre for agricultural teaching. Room for more centres later (i) at Dacca, (ii) in Northern Bengal. (11) Question of primary agricultural education. Views of Bengal Agriculturalists' Conference; of Sir Daniel Hamilton. Teaching of agriculture in primary and secondary schools. Agricultural education in intermediate colleges. (12) Forestry. Sericulture. Veterinary Science. (13) Conclusion.

CHAPTER XLVIII.—TRAINING IN TECHNOLOGY (OTHER THAN ENGINEERING, MINING, ARCHITECTURE AND AGRICULTURE) AND IN COMMERCE.

Section I. Technology as a branch of university studies.—(1—2) A modern university, especially one in a great industrial and commercial city like Calcutta, should include applied science and technology in its courses of study and award degrees and diplomas in those subjects. Such developments of university training are especially needed in India. (3) The decision of the University to enlarge its work in this direction approved and confirmed by the great majority of our witnesses. (4) The consequence of advanced technological training by the University will have a beneficial effect upon the outlook of the secondary schools. University developments of higher technological training

should be associated with corresponding changes in the course of study in high schools and with the provision of practical training in the proposed intermediate colleges. Hence the need for a Board of Secondary and Intermediate Education able to promote and encourage changes in the courses and equipment of the high schools and for intermediate colleges in preparation for what is projected in the more advanced stage at the University.

Section II. Technological departments proposed for Calcutta University. Comments on draft regulations.—(5) The action of the University of Calcutta in developing courses of technological training must largely depend upon financial support received from private benefactors, from the industries concerned and from the Government. (6—7) It is undesirable therefore at this stage to define exactly the higher technological developments (other than those of agriculture, mining, architecture and engineering) which the University should endeavour to establish. But *primâ facie* Calcutta is a suitable centre for the advanced training of students capable of meeting the requirements of (*i*) the leather industries, (*ii*) the chemical industries (including those concerned with the manufacture of dyes), (*iii*) the oil and fat industries, (*iv*) some branches of the textile industry. Enumeration of the branches of applied science in which *inter alia* the University should provide courses of instruction and facilities for research. (8) At Dacca, the University should not, in the first instance at any rate, attempt higher technological training, but the work of scientific investigation in its laboratories should be carefully brought into association with that of investigations in cognate subjects at Calcutta and elsewhere. (9) The function of a university in meeting the intellectual needs of the industrial and commercial world may be combined, with benefit to the whole of its intellectual life and civic outlook, with the maintenance of the older aims of university work. (10) In the technological departments an essential thing is to develope the technical sense of the students. (11) This involves the employment of a staff of teachers combining scientific knowledge with practical experience, the provision of costly equipment in the laboratories and workshops of the University, and friendly relations between the heads of the technological departments and the industrial firms, in order that the students may have opportunities for getting practical experience and may find access to employment. The building up of these conditions will be a slow process, and therefore the development of advanced technological training at the University should be undertaken with deliberation and caution. (12) The industrial outlook in India is full of promise for technological training. (13) Observations on the draft regulations of the Senate of Calcutta University (1918) for examinations and degrees in certain technological subjects. (14) Location recommended for the new technological departments of the University. Co-operation with the proposed Calcutta Technological Institute. (15) The question of a separate faculty.

Section III. Advisory committees ; departmental workshops ; advanced technological study abroad.—(16) The value of an advisory committee, including members with industrial experience and representatives of the scientific staff and administrative authorities of the University, attached to each technological department. (17) Honours and pass courses in technological subjects : degree and diploma courses. (18) Clear definition of the aim of each technological course desirable. (19) Need for securing opportunities for practical experience under works-conditions as part of a technological course. (20) Limitations of the practical

training which the University can give in workshops attached to its own technological departments. Provision of plant. (21) Technological scholarships held abroad: the difficulty experienced by some of the students in finding employment on their return to India in the industry for which they have been trained shows the need for caution in developing technological departments in Indian universities under the conditions hitherto prevailing, though these may change. (22) Analysis of the present occupations of Indian students trained in the technological departments of the Leeds University as showing that industry in India does not yet absorb all technologically trained recruits, but that technological training has educational value as a preparation for other responsible positions.

Section IV. Professors of technology and private consultant practice.—(23—24) Desirability of allowing professors of technological subjects to engage in private consultant practice so far as is consistent with their obligations to the University. (25) Relations of the Government of Bengal to technological education in its various grades. (26) The help and guidance which may be given by the Government of India in the wise development of advanced technological training and research at the various centres in India best adapted for the purpose, and in encouraging co-operation among scientific investigations in different institutions. (27) Our concurrence in the views of the Indian Industrial Commission on this matter.

Section V. Higher commercial education.—(28) Training for commercial life: the various grades required. (29) Higher commercial education given in institutions of university rank has firmly established itself in the United States and in some European countries. But the majority of leading British employers attach greater importance to the social training which a young man gets along with the ordinary course of education at a good school and university than to specialised theoretical preparation for a responsible post in commerce. There are signs of an increasing desire for changes in the course of secondary education and this may be followed by a demand for university courses designed to give training for a commercial career. But the prevailing view is that business ability is developed by business experience and that commercial life is the best college of commerce, provided that facilities are given for young men who are already in business to attend special courses on commercial subjects. (30) Criticism of the draft regulations for examinations and degrees in commerce adopted by the Senate of Calcutta University in 1918. The importance of establishing intermediate colleges, offering as one alternative a course preparatory to employment in commerce. (31) Improvement of the teaching and courses in secondary schools and in the intermediate courses more urgently needed in Bengal at the present time than the institution of degrees in commerce. (32) Recommendation that, in view of probable developments in future, the University should have power to establish a Faculty of Economics and Commerce and to grant degrees and diplomas in commercial subjects. The formation of an Advisory Committee on Higher Commercial Education proposed.

CHAPTER XLIX.—THE SPECIAL EDUCATIONAL NEEDS OF MUSALMANS.

(1) The significance, as a symptom of social change, of the increasing tendency of the Musalmans of Bengal to avail themselves of the opportunities afforded by modern education. (2) The educational condition of Musalmans a vital factor in the social and political development of Bengal. (3) Proposals for safeguarding

Muslim interests in the reorganised Calcutta University. (4) Proposals for safeguarding Muslim interests in connexion with the proposed Dacca University. (5) Muslim interests and the proposed Board of Secondary and Intermediate Education. Linguistic difficulties. The anonymity of examinees. (6) The spirit of the Commission's proposals.

CHAPTER L.—RELATIONS OF GOVERNMENT WITH THE UNIVERSITIES.

Section I. Introductory.—(1—2) Changes must be consequent upon the reconstruction of the university system. (3) The initial changes proposed to be made by the Government of India, (4) which thereafter should exercise visitatorial functions.

Section II. Powers of the Government of Bengal.—(5) The Governor of Bengal to be ex-officio Chancellor. (6—8) The Board of Secondary and Intermediate Education. (9) Government assent to Statutes. (10) Government representation upon university bodies in Calcutta, and (11) Dacca. (12—13) Financial relations between Government and the universities. (14—15) Changes in the management of Government schools and colleges. (16) Future of Government educational services. (17—18) The functions of the Chancellor in Calcutta, and (19) in Dacca. (20) Appeals to the Chancellor.

Section III. The Educational Services.—(21) Application of the service system to university work should be reconsidered. (22—23) The functions now performed by the services to be separately treated. (24—28) Changes proposed in regard to university teaching posts, and (29—30) in regard to schools and intermediate colleges.

Section IV. Appointments to Government posts.—(31—32) Essential importance of the question in its bearing on university work. Importance of not dislocating the educational system. (33—36) Proposed Civil Service Commissions, to conduct tests not independent of the regular school and university course. (37—39) Competitive tests for the Indian Civil Service and their probable effects upon university work. (40—42) University reform a necessary preliminary.

Section V. The functions of the Government of India in relation to university work.—(43) The Government of India cannot dissociate itself from university work. (44) The function of *legislation*. (45) The function of *visitation*. (46—49) The function of *co-ordination*, illustrated especially from higher technological work. (50—53) The function of *stimulating and organising research*, illustrated from History. (54—55) The function of *assistance in recruitment*.

Section VI. Inter-Imperial university relations.—(56) Need for closer relations among the universities of the British Empire. (57) Migration of students within the Empire. (58) Beginning of co-operation among British universities, especially in regard to post-graduate research. (59) Conditions of effective co-operation. (60) The Universities Bureau of the British Empire. (61) Usefulness of such an organ in helping Indian students going to Britain for undergraduate courses, (62) technical training, or (63—64) training in the methods of investigation. (65) Possibility of interchange of university teachers between various parts of the Empire. (66) The Commonwealth of Nations may also be a commonwealth of learning.

CHAPTER LI.—FINANCIAL ASPECTS OF OUR PROPOSALS.

Section I.—General observations. (1—10)
Section II.—Secondary and intermediate education. (11—19)
Section III.—Dacca University. (20—32)
Section IV.—The Teaching University of Calcutta. (33—66)
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CHAPTER II.

Preliminary Observations.

I.

One of the most remarkable features in the recent history of Bengal, and, indeed, of India, has been the very rapid increase in the number of university students which has taken place during the last two decades, and more especially since the Universities Act of 1904. In 1904, 2,430 candidates presented themselves for the intermediate examination[1] of the University of Madras, 457 for that of Bombay, and 3,832 for that of Calcutta. These numbers in themselves were striking enough, considering that the universities were in 1904 less than fifty years old. But the numbers in 1917 were 5,424 for Madras, 1,281 for Bombay, and no less than 8,020 for Calcutta. This means that while the increase in numbers has everywhere been striking, it has been much greater in Bengal than in any other part of India; nor is it easy to find any parallel to it in any part of the world. The flood of candidates for university training has put so heavy a strain upon the University and its colleges as to lead almost to a breakdown. It has brought out in high relief every deficiency of the system. And if justice is to be done to a great opportunity, and the eagerness of young Bengalis for academic training is to be made as advantageous to their country as it ought to be, it has become manifest that bold and drastic changes and improvements in the system are necessary.

2. The full significance of these facts can perhaps be most clearly brought out by a comparison between Bengal and the United Kingdom. The populations of the two countries are almost the same—about 45,000,000. By a curious coincidence the number of students preparing for university degrees is also almost the

[1] The number of candidates for the intermediate examination is chosen in preference to the number of matriculates because Madras has abandoned the matriculation in favour of a school-leaving examination; and also because the intermediate figure shows the number of persons who have not merely passed the matriculation, but proceeded to a university course.

same—about 26,000.[1] But since in Bengal only about one in ten of the population can read and write, the proportion of the educated classes of Bengal who are taking full-time university courses is almost ten times as great as in the United Kingdom.

3. Nor is this the most striking part of the contrast. The figures for the United Kingdom include students drawn from all parts of the British Empire, including Bengal itself; those of Bengal are purely Indian. Again, in the United Kingdom a substantial proportion of the student-population consists of women; in Bengal the number of women-students is—and in view of existing social conditions is likely long to remain—very small indeed. Still more important, in the United Kingdom a very large proportion of the student-population are following professional courses, in medicine, law, theology, teaching, engineering or technical science. In Bengal, though the number of students of law is very great, the number of medical students is much smaller than in the United Kingdom; there are very few students of engineering; students of theology, whether Hindu or Islamic, do not study for university degrees; students of teaching are extraordinarily few; and there are, as yet, practically no students of technical science, because the scientific industries of Bengal are in their infancy, and draw their experts mainly from England.

4. It appears, therefore, that while an enormously higher proportion of the educated male population of Bengal proceeds to university studies than is the case in the United Kingdom, a very much smaller proportion goes to the University for what is ordinarily described as vocational training. The great majority—over 22,000 out of 26,000—pursue purely literary courses which do not fit them for any but administrative, clerical, teaching and (indirectly) legal careers. In the United Kingdom (if the training of teachers be regarded as vocational training) it is possible that these proportions would be nearly reversed. A comparison with any other large and populous state would yield similar results.

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[1] The number of students in Bengal was in 1917-18 just under 26,000; the number of 'full-time' students in the United Kingdom in the year before the War was 26,710 (*see* tables published in *Nature*, August 15th, 1918, page 474). The 'full-time' students included many who were not preparing for degrees. In Bengal all students are preparing for degrees. In the United Kingdom there were also a number of students taking one or two courses, but not giving their whole time to university work. There is no parallel to this class in Bengal.

Bengal is unlike any other civilised country in that so high a proportion of its educated classes set before them a university degree as the natural goal of ambition, and seek this goal by means of studies which are almost purely literary in character, and which therefore provide scarcely any direct professional training.

5. Yet another feature of the contrast, not only between Bengal and the United Kingdom, but between Bengal and all other countries with a student-population of comparable size, is the fact that while other countries have many universities, Bengal has only one. The 26,000 students of the United Kingdom are divided among eighteen universities, which vary widely in type; the 26,000 students of Bengal are all brought under the control of a single vast university mechanism, follow in each subject the same courses of study, read the same books, and undergo the same examinations. The University of Calcutta is, in respect of the number of its students, the largest university in the world. But it is a commonplace that a university, just because it is concerned with so individual a business as the training of the mind, can easily become too large. When the students of Berlin approached five figures, it was felt that their numbers were becoming too great to be effectively dealt with by a single organisation, even though they were all gathered in a single city. The University of Calcutta has to deal with 26,000 students scattered over an immense province wherein communications are very difficult; it is responsible also for the educational control of more than eight hundred schools, a function such as no university outside of India is called upon to perform; and under these conditions it is unreasonable to expect that its governing bodies should be able to deal with their immense and complex task in a wholly satisfactory way.

6. The striking facts which we have attempted to set forth briefly above can only be understood in the light of the social conditions of the country, and of the historical development of its educational system. On these subjects we shall have something to say in the following pages. But in the meanwhile there is one part of the explanation which ought to be noted at once, since it may help to correct some false judgments formed on a superficial consideration of the figures. As we shall demonstrate later, the secondary school system of Bengal as a whole is extremely inefficient. It is impossible for the vast majority of Bengali boys to obtain from their schools a really sound general education, such

as the schools of many other countries provide. For that purpose —and especially in order to obtain a good working knowledge of English, which is necessary for all important avocations—the young Bengali must go on to the university course; and having once begun it, he is naturally ambitious to pursue it to the end. As a very large number of our witnesses and correspondents have urged, the first two years of the present university course are occupied with what is really school work. The students in these two years form about 15,000 out of the total of 26,000. Only the remaining 11,000 are in any strict sense to be described as university students, except by the accident of organisation which places them under university control.

7. But even if we consider only this reduced number, it is difficult to resist the conclusion that an unduly large proportion of the able young men of Bengal are being trained in a manner too purely literary. Evidence from all sides, from Indians and Englishmen alike, shows that though some few have found the fullest scope for their abilities, and are occupying with distinction positions of the highest importance, and though practically all the graduates of the University do find employment of one sort or another, there is in Bengal a large number of men who, after having either obtained university degrees, or reached an earlier stage in the university course, find that there are no outlets available for them such as their academic standing justifies them in expecting. At first they not unnaturally "decline to take any post which they consider an inadequate recognition of the credential which has rewarded their laborious efforts. They thus lose chances, and sometimes spend months or years loitering about some district headquarters, and living on the joint family to which they belong. As a general rule, they sooner or later accommodate themselves to circumstances, but often with an exceedingly bad grace, and with a strong sense of injury."[1] When we consider the humble status and low pay of many of the posts with which university graduates are compelled to be content, it is impossible not to recognise that there is some justification for this sense of injury. It is impossible, also, not to recognise that a system which leads to such results must be economically wasteful and socially

[1] Bengal District Administration Committee Report, 1914, pages 13 14.

dangerous, and must in the end lead to the intellectual impoverishment of the country.

8. It is inevitable that men of ability who, after an arduous training, find themselves in such a situation should be deeply discontented, and should be inclined to lay the blame—as is the natural temptation of the dissatisfied in all lands, and above all in India—upon the Government of their country. The anarchist movement which has been so distressing a feature of recent years in Bengal has, by some, been attributed largely to the influence of these discontented classes; and undoubtedly it has drawn from among them many of its recruits. This does not mean that the colleges of the University have been, as has sometimes been alleged, in any large degree centres of revolutionary activity. Naturally the wave of unrest which has passed over Bengal has found a readier welcome among students than in other classes of the population; the ferment of new political ideas, drawn from the West, has of course worked most strongly among the students of western politics and thought. But, according to the Bengal District Administration Committee, whose opinion in this matter is confirmed by that of the Sedition Committee of 1918,[1] it has been in some of the high schools, rather than in the colleges, that the more reckless agitators have found their most fruitful fields. The reasoned discipline of scholarship is hostile to the madness of anarchy; and the better that discipline is made, the more sane and healthy must be its influence.

9. Nevertheless it must be admitted that the existence, and the steady increase, of a sort of intellectual proletariat not without reasonable grievances, forms a menace to good government, especially in a country where, as in Bengal, the small educated class is alone vocal. It must be an equal menace whatever form the Government may assume. So long as the great mass of the nation's intelligent manhood is driven, in ever increasing numbers, along the same, often unfruitful, course of study, which creates expectations that cannot be fulfilled, and actually unfits those who pursue it from undertaking many useful occupations necessary for the welfare of the community, any Government, however it may be constituted, whether it be bureaucratic or popular, must find its work hampered by an unceasing stream of criticism, and of natural demands for relief which cannot possibly be met.

[1] See the figures given in the appendix to their report.

10. The growing demand of the people of Bengal for educational facilities is one of the most impressive features of our age. It is in itself altogether healthy and admirable. It is increasing in strength and volume every year. But, owing in part to social conditions, and in part to the educational methods which the traditions of the last half-century have established, this powerful movement is following unhealthy and unprofitable channels; and unless new courses can be cut for it, the flood may devastate instead of fertilising the country. Thus the problem with which we have to deal is by no means purely an academic or intellectual problem. It is a social, political and economic problem of the most complex and difficult character; and the longer the solution is postponed, the more difficult it will be. Its very elements cannot be understood without some understanding of the social conditions from which it has arisen.

II.

11. The rapid growth in the number of university students which has taken place during the last two generations in western countries has been due very largely to the growth of industrial and commercial enterprise, which demanded, in the first place, an army of scientific experts and of administrators with wide outlook and trained imagination, and in the second place, an army of teachers able to create educated managers, clerks and workpeople. Until these demands became urgent, a quite modest number of graduates met all the needs of the old learned professions in all the western countries. But the yet more rapid increase of university students in Bengal has not been due to any such cause. It must be attributed in a large degree to social usages and traditions which are peculiar to India, and specially strong in Bengal.

12. In spite of their marked intellectual gifts, the Bengalis have not, especially since the Industrial Revolution, shown much capacity or inclination for commerce or industry. They have allowed even the retail trade of their own country to be captured, in a remarkable degree, by the Marwaris of Rajputana. The export trade of the country is mainly in the hands of Europeans, Armenians and Japanese. Since the days when the old hand-loom weaving industry was beaten by the products of machinery, the Bengali has taken very little part in the development

of those large-scale industries to which the soil and climate of his country lend themselves.[1] With a few conspicuous exceptions, the coal-mines, the jute-mills and the great engineering enterprises of the Presidency are mainly controlled and directed by immigrants. Even the labour employed in mine and mill is almost wholly drawn from other provinces;[2] so that in the great industrial city of Calcutta only 49 *per cent.* of the population is Bengali-speaking.[3] Alike in industry and in commerce the main function performed by Bengalis is that of clerical labour.

13. It is a complaint frequently heard among Bengalis that they are excluded from the most lucrative activities in their own country, and that this exclusion is due to prejudice. But there seems to be no tangible justification for this view. No disabilities are imposed upon Bengalis that do not equally weigh upon Marwaris, Parsis, Armenians or Japanese. The real obstacle is to be found in the strength of the tradition among the educated classes of Bengal which excludes them from practical pursuits. Hitherto tradition has forbidden men of the literate classes to take part in these occupations; and long abstention has perhaps bred among them a certain incapacity for practical callings. Fortunately there is evidence that this attitude of aloofness is breaking down.[4] The very complaints of exclusion are in themselves a good sign. Still more promising are the wide-spread demands that the educational system should be given a more practical turn. Educational reforms alone will not suffice to bring about the needed change. But at least it is well that the people of Bengal should be beginning to realise that the system as it stands, into which they have thrown themselves with so much ardour, is doing nothing to help or to hasten the change, because its whole bias is still in favour of purely literary forms of training.

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[1] See the Report of the Indian Industrial Commission, 1918, para 16, where an instructive comparison is drawn between Bengal and Bombay.

[2] See the remarkable figures quoted by the Indian Industrial Commission, in para. 15 of their report.

[3] Census Report, 1911.

[4] Thus the Indian Industrial Commission (para. 16) notes that while "Bengali capitalists have taken little part, otherwise than as mere investors, in the starting, and none at all in the management, of jute mills," a feature of industrial life in recent years "is the number of small organised industries recently taken up by Indians, such as tanning, pottery and pencil-making."

14. Since industry and commerce, playing, as they do, but a small part in the real life of Bengal, have hitherto contributed nothing to the development of the educational system, we must look to the other sections of the population for the elements of this remarkable movement. These other sections are two: the agricultural population, and the professional classes.

15. It is from agriculture that almost the whole Bengali people has always derived, and still derives, its livelihood, directly or indirectly; and the conditions of soil and climate decree that this must continue to be so, however great the commercial expansion of the future. But the agricultural needs of the country are not such as to demand or stimulate any marked educational development. The great landlords of the country—the zamindars—who were once mainly collectors of land-revenue for the State, and were turned into hereditary landowners by the Permanent Settlement, have never played in Bengal anything like the part played by the landowners of England, who filled the public schools and universities in order that they might be trained for the political leadership of the nation. Nor have the zamindars been tempted to develope their estates by the application of scientific methods of agriculture. Legislation for the protection of tenant-rights has in some degree tied their hands. But in truth the rich alluvial soil of Bengal is singularly well suited to the methods of culture by the hand-labour of small-holders which have been gradually developed through centuries; and the mechanical, scientific, large-scale methods of the West are difficult to adapt to the economic and social conditions of Bengal, and perhaps also to some of its crops. Hence agriculture, equally with industry and commerce, has hitherto made no direct demand upon the educational system.

16. The great majority of the population of Bengal consists of the actual cultivators of the soil. Many of them belong to the lower castes of Hinduism, or are outside the pale of orthodox Hindu society; and these are generally illiterate. But more than half of the cultivators, especially in the prosperous regions of Eastern Bengal, are Musalmans. The Musalmans form 52·7 *per cent.* of the total population of the Presidency;[1] in some districts of Eastern Bengal they number as much as 90 or 95 *per cent.*; and overwhelmingly the greater part of the Musalmans are

[1] Census Report, 1911.

cultivators. They also are, for the most part, illiterate; such rudiments of education as they obtain are valued mainly for religious purposes, and are commonly limited to the memorising of parts of the Quran, taught in the *maktabs* attached to the mosques. Hitherto the western educational movement has scarcely touched the cultivator, except through a primary school system which is, and always has been, largely out of touch with some of the economic needs of the community which it ought to serve. The cultivator has not yet learnt to value education as an equipment for his life: he often fears, not without reason, that his children may be tempted away from the land by a system of training which has no bearing upon the work of the fields.

17. Yet in recent years recruits have begun to come to the University in increasing numbers even from the cultivating classes. The jute-growing lands of Eastern Bengal in particular enjoyed until the period of the war great prosperity; and this has enabled many cultivators to send those of their sons who are not needed on the land through the normal routine of high school and college leading to the degree. This is the recognised pathway to respectability and social advancement, the course that leads to Government employment, or to success in the legal profession, wherein the most respected names of Bengal are enrolled. It is the one channel of escape from the rigid social barriers imposed by the system of caste. The adoption of academic ambitions by even a small proportion of the cultivating class is an event of great moment in the social history of Bengal. It may be the herald of a social revolution. But its immediate result, so long as the present system remains unchanged, must be to enlarge indefinitely the already swollen mass of aspirants after a purely literary training, and to increase that discontented intellectual proletariat whose rise has been so disturbing a feature of recent years; it threatens also to drain away much of the best talent from the villages, to the detriment of the country's supreme economic interest. The movement is but just beginning; it is not too late to transform its character and consequences by giving a more practical bent, and a more varied character, to the educational system.

18. But it is not from the agricultural classes, any more than from the commercial or industrial classes, that the eager demand for educational opportunities has come, which has led to the remarkable

results described above. The classes whose sons have filled the colleges to overflowing are the middle or professional classes, commonly known as the *bhadralok;* and it is their needs, and their traditions, which have, more than any other cause, dictated the character of university development in Bengal. Many of the *bhadralok* are zamindars, great or small, or hold land on permanent tenure under zamindars; but they seldom or never cultivate their own lands, being content to draw an income from subletting. Many, again, make a livelihood by lending money to the cultivators; and the high rate of interest which they are thus able to obtain is often adduced as a reason why they have abstained from the more precarious adventures of commerce. They are thus closely connected with the agricultural community, over which they have always held a real leadership; and they are distributed in large numbers over every part of the country.

19. Relatively few of the Musalmans are counted among the professional classes. The great majority of these classes belong to the three great Hindu literary castes, the Brahmins, the *Vaidyas* (doctors), and the *Kayasthas* (writers), who are relatively more numerous in Bengal than are the corresponding castes in any other part of India. For untold centuries they have been the administrators, the priests, the teachers, the lawyers, the doctors, the writers, the clerks of the community. Every successive Government in Bengal has drawn its corps of minor officials, and often also many of its major officials, from among them, the British equally with their Muslim predecessors. They have therefore always formed an educated class, and it may safely be said that there is no class of corresponding magnitude and importance in any other country which has so continuous a tradition of literacy, extending over so many centuries. It has always been the first duty of every father in these castes, however poor he might be, to see that his sons obtained the kind of education dictated by the tradition of their caste.

20. But this traditional system of education, which has lasted for untold centuries, has always been predominantly, and in most cases exclusively, literary in character: even the *Vaidyas* learnt their medical science mainly from books and from oral tradition. When the British administrators began, in the early nineteenth century, to investigate the existing educational system, they found a network of elementary schools spread over every part of the

country, supplemented by groups of *tôls*, or institutions of higher learning, where Brahmin *gurus* taught the traditional learning of the Sanskrit classics without fee. These institutions still exist, though in diminished numbers; there are still, for example, a number of *tôls* at the once famous Nawadip in the district of Nadia. They existed, of course, purely for the use of the learned castes. The Musalmans developed a similar system, though on a less elaborate scale; their *maktabs* for the elementary religious education of the many, and their *madrassahs* for the more advanced instruction of *maulvis*, confined themselves to the sacred learning in the Arabic tongue, and to the court language of Persian, which the Muslim conquerors had established in India; and so long as Persian remained the language of the courts, as it did until 1837, these schools were to some extent used also by Hindus, anxious to qualify for Government employment.

21. Thus both among the literate Hindu castes and among the Musalmans, the traditional systems of learning were almost exclusively literary and religious in character. They consisted in the memorising of vast masses of ancient writings, and commentaries thereon, handed down from generation to generation. They cultivated, in an extraordinary degree, the memory-power of the classes which had pursued these studies for centuries; and the influence of these methods was necessarily deeply felt when these classes began to devote their attention to western learning. Both in their concentration upon purely literary studies, and in their reliance upon memory-work, the indigenous systems of education helped to fix the character which was to be assumed by western education in India.

22. It was a great epoch in the history of India when the intellectual powers trained by so many centuries of culture began to be turned from the ancient learning of the East to the new learning of the West. The habits and traditions of the *bhadralok* made it natural that, when they seized upon the western system, they should mould it to suit their needs, emphasise its purely literary side, and leave undeveloped its more practical sides. But the transition could not be made in a moment. For half a century the new system competed with the old, and the allegiance of the *bhadralok* was divided between them, probably not without misgivings. What we have witnessed during the more recent years has been, in effect, the adoption by the Hindu *bhadralok* of the new western

system as, in practice, a substitute for the old, and as the necessary training which all their sons must undergo. Meanwhile the Musalmans of the *bhadralok* class, for the most part, stood aside from the new system. Long accustomed to regard themselves as the ruling race, they retained their devotion to the traditional Islamic studies in Arabic and Persian, which they had hitherto found not merely culturally valuable, but also practically useful. In recent years they have increasingly demanded a fuller share of the new learning. And beyond them we see the mass of the cultivators, stirring at last from their age-long acquiescence in unchanging modes of life.

23. Such, in broad outline, is the explanation of the remarkable movement with which we have to deal. The problem before us is as inspiring as it is complex and difficult. We have to consider whether the system now existing in Bengal is capable of meeting the demand, which has developed so rapidly in recent years, and will certainly develope yet more rapidly in the future; and, if it is not so capable, how it can best be modified. But these are questions which cannot be intelligently answered unless we first gain a clear idea of the stages through which the existing system has passed, and the ideals at which it has aimed; and unless we also analyse carefully its actual working.

CHAPTER III.

The Development of the Western System of Education in Bengal.

I.—The period of beginnings to 1854.

1. It was no part of the policy of the East India Company, during the first two generations of its dominion in Bengal, to impose a western, or English, system of education upon its Indian subjects. Warren Hastings, the dominating figure of the early part of the period, entertained a genuine admiration for the laws and the literatures of India. It was his belief that, if the British power was to be lasting, it must become an Indian power, and that its greatest gifts would be the gifts of order and justice, under which the ancient indigenous culture might revive and flourish. Nor, in spite of the literary achievements of the time, did there yet appear to be, elsewhere than in the political sphere, any very distinctive intellectual contribution which England could make to the education of her new dominion. Orthodox English education was then dominated, almost as completely as Indian, by reverence for 'classics,' and by dogmatic theology.[1] To substitute one set of classics for another might well seem futile; to attempt to substitute one system of dogma for another appeared, to all but those who were touched by missionary zeal for the Christian faith, at once dangerous and hopeless. The results of the industrial revolution were not yet apparent; the doctrines of modern economic and historical science were only beginning to be formulated; the vast revolution of modern scientific discovery had but just commenced. Quite apart from the political motive, which urged Anglo-Indian statesmen to disturb the minds of their subjects as little as possible, it might well appear that, on the intellectual side, India would profit most if she were left free to cultivate her own ancient learning and her own system of thought without interference.

2. The first assertion that it was the duty of England to communicate to her Indian subjects, by the channel of education, her

[1] In England Priestley was advocating and practising a more modern system; but his was a voice in the wilderness, to which few hearkened.

own intellectual and moral conceptions, came not from statesmen and administrators but from religious reformers. Charles Grant, whose advocacy of English education for India in 1792[1] may be called the beginning of the whole movement, had served in India, and was a Director of the East India Company. But his inspiration came from the evangelical revival, a movement which gave a new impetus to missionary enterprise, and at the same time brought into British imperial policy a humanitarian spirit, of which the abolition of the slave trade was the most striking manifestation. Grant was a member of the 'Clapham School,' which included Wilberforce and Zachary Macaulay. It was largely the influence of this group which obtained the inclusion in the India Act of 1813 of a clause requiring the Directors to spend at least a lakh of rupees annually on education. Meanwhile the activity of Christian missionaries in Bengal, which was to play so vital a part in the development of a new educational system, had begun. William Carey (whom Grant had befriended in India), had, with his heroic colleagues, settled at Serampore, where he enjoyed greater freedom under the Danish flag than the Government of Calcutta would have allowed him; and had begun to open schools, and to employ the still more potent instrument of the printing press. Western education, in Bengal as in the rest of India, owes its first impetus to the missionaries.

3. But the authorities of the East India Company, both at home and in India, still clung to the old view. The Directors interpreted the clause of the Act of 1813 as only requiring them to subsidise institutions of oriental learning.[2] Even in this policy Government showed no activity until 1823, when a Committee of Public Instruction was set up. The available funds for educational purposes were spent partly in printing oriental classics; partly in grants to educational societies, such as the Calcutta School Book Society, founded in 1817, and the Calcutta School Society, founded in 1818; partly in supporting the Calcutta Madrassah, founded by Warren Hastings in 1781, and in establishing a Sanskrit College at Calcutta, which was opened in 1824. Throughout the

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[1] "Observations on the state of society among the Asiatic subjects of Great Britain... and on the means of improving it."

[2] Thus in a despatch of 1814 they definitely rejected the method of founding colleges "upon a plan similar to those that have been founded at our universities," because they would be unacceptable to Indians, and proposed instead to give recognition, and possibly small gratuities, to *pandits*. Select Committee of 1832, Minutes of Evidence, page 486.

period 1813 to 1835 there was continual controversy between the orientalists and the western school; but the orientalists held the upper hand, and no Government support was available for English teaching. That had to be undertaken by private enterprise; and it was not until 1815 that, by a minute of Lord Hastings, Government gave freedom to private enterprise.

4. In the earliest efforts to introduce western learning into India two rival and conflicting influences were perceptible. On the one hand, there was the influence of a semi-rationalist school, concerned mainly to foster secular training, and sympathetic with corresponding movements in England. On the other hand, there were the missionaries, for whom English education was mainly important as a vehicle for religious teaching. In the sphere of higher education the former school was first in the field. In 1816 the admirable David Hare,[1] an English watchmaker, and a sort of Francis Place of Calcutta, joined hands with the brave and enlightened Brahmin, Ram Mohan Roy, who had found his own way to a remarkable mastery of western culture, had abandoned orthodox Hinduism, and later made friends with the unitarian leaders in England. Hare and Roy formed a Committee of Indians and Englishmen, among whose members was included the Chief Justice, Sir Edward Hyde East, and raised a fund for the establishment of a school and college of western learning, Hare himself providing the site. Thus was founded the Hindu College (1817), which is represented to-day on the higher side of its work by Presidency College, and on the lower side by the Hindu School. Distrusted both by Christian missionaries and by orthodox Hindus, in its earlier years, as a secularist institution which was undermining the foundations of belief, the Hindu College passed through some troublous times; but it introduced the more daring Hindus of Calcutta to the teachings of the West.

5. If the Hindu College was partly rationalist, Bengal had not long to wait for an antidote. In 1818 Carey, Marshman and Ward opened the first missionary college at Serampore. It rested upon the foundation of a whole group of schools which they had earlier established; and in 1827 it actually received, from the King of

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[1] Hare's tomb stands on the south side of College Square; on June 1st, the anniversary of his death, Indians may still be seen going barefoot to the tomb, to do honour to one of the founders of western education in India.

Denmark, a Charter empowering it to grant degrees. In 1820 Bishop's College was opened by the Anglicans at Sibpur. In 1830 the great Scottish scholar, missionary and statesman, Alexander Duff, inaugurated, under the name of the General Assembly's Institution, a school in Calcutta, to which college classes were later added, and which was the origin of the modern Scottish Churches College and School. With Duff there came into Indian education that powerful Scottish influence, which has ever since been one of the strongest factors in shaping its growth. Missionaries and Hindu reformers between them succeeded in arousing a remarkable ferment of new ideas in the Calcutta of the thirties; the educational revolution had begun.

6. It is important to observe that from the outset these two more or less hostile strains were perceptible in the new movement; and the situation presents a very instructive parallel to that which was created almost simultaneously in London, when the establishment of the secular University College (1828)[1] was immediately followed by the institution of the ecclesiastically controlled King's College (1829). In London, when the University was established in 1836, the necessity of co-ordinating these conflicting forces led to the establishment of a system which, though it rendered many valuable services, obscured the teaching responsibilities of the University as such. In Calcutta similar causes would probably have produced similar results even if the model of London had not been deliberately adopted for imitation.

7. Another marked feature of the early development of western education in Bengal was that, under the mere pressure of circumstances, it was found impossible to draw any clear line between the school and the college. This absence of differentiation continued down to the Act of 1904; but even that Act could not wholly cure the defect; and, as we shall see, it still survives in some respects to-day.

8. The political revolution of 1830-32 in England had an immediate effect in India, and not least in the sphere of Indian education. One of the main achievements of the Whigs was the India Act of 1833. This Act not only brought to an end the commercial privileges of the East India Company; it gave free admission

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[1] Known as 'the University of London' until the foundation of the present University in 1836.

to India to British subjects, abolishing the requirement of a licence, until then exacted by the Company. This left the field clear for the missionaries; henceforward their activities were limited only by the funds they were able to raise at home, and the English missionary societies were now at the beginning of their most active period. As many of the missionaries adopted the view of Duff, that education presented the most fruitful field for their labours, the result was a very rapid expansion of missionary schools and colleges.

9. The Act of 1833 also added a legal member to the Governor-General's Council; and the first Legal Member was Macaulay, a rationalist by instinct, but at the same time an inheritor of the traditions of Grant and the 'Clapham School,' to which his father had belonged. Macaulay, as a distinguished man of letters, was made Chairman of the Committee of Public Instruction, then almost equally divided between partisans of the oriental and the western schools. His famous minute[1] of February 1835 marks the definite victory of the western school. Its policy was adopted by the Governor-General, Lord William Bentinck; and the principles were laid down, first that Government would maintain an absolute neutrality in religious matters, and secondly that henceforth all the funds available for educational purposes should be mainly devoted to the maintenance of schools and colleges of western learning, to be taught through the medium of English.

10. The nature of the new principles introduced into Indian educational policy in 1835 has been often misinterpreted. It was decided that Government must undertake a steady encouragement and expansion of western education; and as a sign of this the funds devoted to educational purposes were greatly increased. It was decided, also, that the medium of instruction in higher work should be English, rather than the ancient learned tongues, Sanskrit and Arabic. But this did not mean that Government wished to discourage oriental learning; still less did it mean that they intended to discourage the development of the vernacular. The eastern and the western schools were agreed that the Indian vernaculars were not yet developed sufficiently to be used as the media of western knowledge, and the only question between them was whether English or the classical languages should be used for this purpose. But the now victorious western school always held that the

[1] Reprinted in the volume of appendices to this report.

vernaculars ought to be improved and developed; they insisted that the vernacular should be properly taught in all schools: and they looked forward to the time when western knowledge would be widely diffused through the vernacular.[1]

11. Other changes, introduced in the same years, powerfully contributed to foster the new system. In the same year which saw the issue of Macaulay's Minute, freedom of the press was established.[2] And two years later a still greater encouragement to western learning was given by the supersession of Persian as the language of the courts.[3] Under these favouring conditions it is not surprising that there should have been a rapid development of the new system, under Government direction and encouragement. An admirable survey of the indigenous system of education, carried out in 1835 and the following years by Mr. W. Adam, showed that a network of primitive vernacular schools existed throughout Bengal. But no attempt was made to develope these schools. Government preferred to devote its energies to secondary and higher schools, on the theory that if western education were introduced to the upper classes it would 'filter down' by a natural process to the lower classes. Time has shown that it was not safe to trust to this alone. But the 'filtration theory' dominated the educational policy of Bengal until 1854. The main work of these years was the creation by Government of a series of high schools in each district, some of which, by the addition of classes for higher work, developed into colleges; but, including the work of the missionaries, there was an increasing amount of private effort during the twenty years following 1835. In Calcutta, Government practically took over the Hindu College and School, which henceforth mainly depended on public funds. Among the Government schools at mufassal centres, four expanded into colleges during the next twenty years; Hooghly in 1836, Dacca in 1841, Krishnagar in 1845 and Berhampur in 1853. Even more striking was the introduction of the western system of medical training by the foundation of the Medical College in 1835.[4] The teaching was given in English; and the courage of Pandit Madusudan Gupta in defying an ancient

[1] See Chapter XVIII, where this point will be more fully developed, and illustrated by documents.

[2] Act XI of 1835.

[3] Act XXIX of 1837.

[4] See Chapter XXIII, where the early development of medical training is traced.

prejudice by beginning the dissection of the human body, marks an era in the history of Indian education almost as important as Macaulay's minute.

12. Practically all the public funds available for education were between 1835 and 1854 expended on schools and colleges founded and controlled by Government. But valuable work was also carried on by private agencies. In Calcutta there were, before 1853, a number of English schools founded and conducted by Indians, though no statistical details of their work survive. The activities of the missionaries also continued to thrive and expand. They founded many schools, in the mufassal as well as in Calcutta. Duff's College grew steadily in numbers and influence; and when in 1843 Duff himself joined the great party which seceded from the Established Church of Scotland, his indefatigable energy created a second college, the Free Church Institution, now merged in the Scottish Churches College.

13. Numbers, as might be expected, remained small during this period. As late as 1854 there were only 129 students in all the Government colleges of Bengal, Bihar and Orissa; the numbers in the mission colleges are not known. Nevertheless, the progress made in English education during the decade following 1835 was sufficient to justify Lord Hardinge, in 1844, in announcing that thenceforward preference would be given, in all appointments under Government, to men who had received a western education; and a series of examinations in English was instituted for the selection of candidates. It is true that the candidates were at first disappointingly few; and the missionaries complained that an unfair advantage was given to students trained in the Government colleges. But the great step had been taken; western education had become the passport to the public services. This decision had been made possible by the Act of 1837, whereby Persian ceased to be the official language of the courts.

14. The influence of the Act of 1837 and the Resolution of 1844 upon the Hindu *bhadralok,* from among whom all the minor officials had long been drawn, was bound to be decisive. They had long been in the habit of learning a foreign language—Persian—as a condition of public employment; they now learnt English instead. It was, indeed, the Hindus who alone took advantage of the new opportunities in any large numbers. The Musalmans naturally

protested strongly against the change; which was, indeed, disastrous for them. Hitherto their knowledge of Persian had given them a considerable advantage. They refused to give up learning it—it was for them the language of culture. To take up English in addition would be too heavy a burden; moreover they had learnt to think of English as associated with Christian teaching, owing to the activity of the missionaries, and they were less willing than the Hindus to expose their sons to missionary influences. Their pride and their religious loyalty revolted; and they stood aloof from the movement.

15. But, in spite of opposition, by 1853 the system of English education had definitely taken root in Bengal. Only a small proportion, indeed, of even the educated classes passed through the new institutions; and it still needed some courage for an orthodox Hindu, and even more for an orthodox Musalman, to enrol himself as a student. But a western training had become the avenue to Government service, and to professional distinction; and many Bengalis had acquired that enthusiasm for English literature which was to lead to such momentous consequences, political as well as intellectual.

16. And already what was to be, until our own days, one of the most distinctive features of Indian education had become clearly marked. Higher education, instead of being concentrated, as in the West, in a few highly organised university centres, was carried on by a number of scattered colleges, none of which deserved full university rank, and nearly all of which had grown out of schools, from which they were not in any clear way differentiated. It now seemed to be necessary not only to extend the system, but to provide some means of regulating and standardising the work carried on at these scattered institutions; some means also of testing the candidates for Government posts in a manner not open to the objections raised against the system of 1844. As early as 1845 it had been suggested that these needs could best be met by the institution of universities on the model of that of London, but the Directors were not, in 1845, ready for such a step.

II.—The organisation of the educational system, 1854—1882.

17. The most important epoch in the history of Indian duca tion is marked by the great parliamentary enquiry into the

condition of India which preceded the confirmation of the Company's charter in 1853. For the first time Parliament investigated, seriously and sympathetically, the development of Indian education. Enough evidence to fill volumes was submitted to Committees of the Lords and Commons. The most important of the witnesses were Sir Charles Trevelyan (Macaulay's brother-in-law), J. C. Marshman, the son of Carey's colleague, and Alexander Duff. Their evidence all tended in the same direction. It formed the basis of Sir Charles Wood's epoch-marking education despatch of 1854, which determined the whole subsequent course of Indian educational development. In the ideas, and even in the phrasing, of this despatch, the influence of Duff is very clearly perceptible.

18. The despatch of 1854 was, in its main conceptions, a bold, far-seeing and statesmanlike document. It imposed upon the Government of India the duty of creating a properly articulated system of education, from the primary school to the university; perhaps its most notable feature was the emphasis which it laid upon elementary education, hitherto disregarded by Government, and therefore its implicit repudiation of the more extreme forms of the 'filtration' theory. To carry out this constructive work, it ordained the creation of a Department of Public Instruction in every province, with a staff of inspectors; and it clearly anticipated that this department would undertake the direction of all educational policy—an anticipation which was destined to be disappointed, especially in Bengal.

19. In the belief that Government activity alone could never suffice to create such a system as it contemplated, it broke away definitely from the practice followed since 1835, whereby most of the available public funds had been expended upon a few Government schools and colleges, and instituted a systematic policy of 'grants-in-aid,' to be distributed by the Departments of Public Instruction to all institutions which should reach an approved standard. It "looked forward to a time when any general system of education provided by Government might be discontinued" with the advance in the number of spontaneously organised schools which this policy was expected to produce. And, taking the view that public funds would be most profitably used if they were employed to stimulate local activity or private benevolence, it even contemplated the ultimate abandonment by Government of direct control over many

of its existing institutions, while recognising the necessity of their maintenance for the present. This policy was modelled upon the educational policy of the British Government at that date.[1] The plan was that every honest educational agency, whether religious or not, should be encouraged to the utmost, under the inspection and direction of a Government department, and with the encouragement and assistance of the local officers of Government, upon the value of which emphasis was laid. The establishment and development of the policy of grants-in-aid was to be of such importance to the history of Indian education that we have thought it well to give fuller treatment to it in a separate chapter.[2]

20. But the most important sections of the despatch, from our point of view, were those in which the establishment of provincial universities was advocated. They were to be constituted on the model of London University, at that date a purely examining body which admitted to its tests only the students trained in affiliated institutions. The system seemed to be the latest device of educational statesmanship. It had been suggested, in London, by conditions which resembled those of Bengal, and seemed to afford the readiest solution of the problem of Bengal. Its defects were not yet apparent, though it was to be profoundly modified by London itself four years later. It had the advantage of costing very little. It enabled all the existing collegiate institutions, whether Government or missionary, to be worked into the same scheme, and promised to provide a quite impartial mode of testing the qualifications of students for Government service. Above all, it gave freedom to the non-Government colleges—all, at that date, mission colleges—to carry on their work in their own way, and offered them help from public funds for the secular side of their work. Undoubtedly this aspect of the system had real merits ; it encouraged a variety of type which is always valuable, and was especially valuable in that period of innovation.

21. The authors of the despatch of 1854 assuredly did not intend that their system should be so narrowly conceived as it came to be in practice. They did not mean that university examinations,

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[1] In effect it applied to India the principles enunciated in the minutes of the English Committee of the Privy Council on Education in 1846.

[2] Chapter IV.

as such, should be accepted as the sole tests qualifying for public posts; they also recommended the institution of special civil service examinations. And while they manifestly contemplated that the ordinary subjects of study should be dealt with by the colleges, they did not intend that the universities should be deprived of all teaching functions; on the contrary, they recommended the establishment of a number of university chairs, "in branches of learning for the acquisition of which, at any rate in an advanced degree, facilities do not now exist in other institutions." Finally, they were fully aware of the dangers of a too purely literary course of instruction. Not only did they recommend that professional training, especially in medicine and law, should be given under the direct control of the University; they insisted upon the necessity of training teachers for all classes of schools; they advocated the institution in the universities of courses of study and degrees in civil engineering—a proposal to which effect was given by the foundation of the College of Engineering in 1856;[1] they emphasised the importance of communicating 'useful and practical knowledge,' and urged that 'practical agriculture' should be taught in the schools. They hoped that the system of education would rouse the people of India to develope "the vast resources of their country... and gradually, but certainly, confer upon them all the advantages which accompany the healthy increase of wealth and commerce." If the plan had been carried out as conceived in the despatch, it is probable that the development of the Indian educational system would have followed a very different course.

22. The departments of public instruction provided for by the despatch were instituted in 1855; the universities were not established till 1857. It will be convenient first to observe some features of the work of the Bengal Department, and the effects of the new grant-in-aid system, before we turn to analyse the working of the new university system. We are not here concerned with the varied and interesting experiments which were made during the next quarter of a century in the attempt to develope and improve the indigenous village schools without destroying their character. Nor does it fall within the sphere of our enquiry to note the character and extent of the growth of the system of vernacular secondary (middle)

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[1] For the history of the beginnings of the teaching of medicine and engineering, see Chapters XXIII and XXIV.

schools which was brought about during the period, under the influence of the grants-in-aid. More germane to our enquiry is the striking increase in the number of English high schools which was the immediate result of the new policy; since it was from these that the colleges of the University drew their recruits. The offer of grants-in-aid brought into existence, with astonishing rapidity, a number of new high schools, managed by local committees, and staffed almost wholly with Indian teachers who had learnt English from the schools and colleges created during the previous twenty years. In 1855 there were only 47 English schools in the whole of Bengal, Bihar and Orissa. Within eighteen months of the inauguration of the new system 79 English schools had applied for grants. By 1871 there were 133 high schools, and no less than 551 schools of the lower (middle English) grade. By 1882 the number of high schools had risen to 209.

23. The main reasons for this rapid increase were, no doubt, that a knowledge of English was becoming more and more essential for Government service and other occupations; and that the creation of the University, and the opportunity of winning its degrees, had begun to fire the ambitions of the Hindu literate classes: the high schools were already being regarded by many, not as providing an education worth having by itself, but mainly as portals to the University.

24. But the most striking feature of the story is that while there was a very large increase in the total number of high schools, there was, during the decade 1871-1882, an actual decrease in the number of Government schools, and even of aided schools. This was due to a diminution in Government expenditure on secondary education, which in its turn was due to three causes: financial stringency caused by famine; a deliberate concentration during these years on the development of elementary education; and the exaction of a higher standard of efficiency from high schools as a condition of grants. The striking thing is that in very large numbers the organisers of Bengal high schools were discovering that these schools could be run on a self-supporting basis without Government grants, and that they need not therefore submit to the conditions which the Department imposed. The flood of candidates which made the rise of these schools possible all aimed at one single goal: success in the entrance examination of the University; and the require-

ments of this examination were already the only regulating or controlling influence for a large part of the schools of Bengal.

25. Thus the Department found, during the decade preceding 1882, that it was losing influence over a very important part of the educational system. Its place was being insensibly taken by the University, which had no proper organisation for the purpose. The University and the secondary schools were influencing one another, not wholly for the better. The University (not of set intention) was helping the schools to dispense with the conditions and equipment necessary for good work, and encouraging them to content themselves with preparing for examinations. The schools were sending up candidates who, though they might get through an examination, were ill-qualified to follow with intelligence the university courses, and especially poorly equipped in English, the medium of instruction.[1]

26. The influence of the grant-in-aid system upon higher or collegiate education was far less marked than its influence upon secondary education. It is remarkable that between 1854 and 1880 only two colleges under private management were started. One was St. Xavier's College of the Society of Jesus (1862). The other—the first college founded and conducted wholly by indigenous agency—was the Metropolitan Institution, founded in the first instance as a school, by Pandit Iswar Chandra Vidyasagar, and in 1869 developed into a college: the founder, who was one of the leaders of the Bengali educational movement, provided the college with a building and the beginnings of a library, but its cost of maintenance has throughout been met almost wholly out of fees. Two other colleges, also outgrowths of schools, were opened in 1881 by members of the Brahmo Samaj: the City College, and the now defunct Albert College. But when the Commission of 1882 began its enquiries, these were institutions of yesterday.

27. During the first twenty-two years of the University's existence the numbers of students produced by the high schools steadily increased, and they either had to be accommodated in

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[1] This was in part due to the low standard of the entrance examination: the Bengal Committee of the Education Commission of 1882 reported that 'the standard of the entrance examination appears to be below that attainable in present circumstances by high schools.' *Bengal Provincial Committee's Report*, page 153.

the existing colleges, or new institutions had to be created for them by Government. Hence the policy suggested by the despatch of 1854, of a gradual withdrawal of Government from the direct management of some of these institutions, was out of the question. Instead, new Government colleges had to be created. In 1855 Lord Dalhousie created Presidency College, with which the old Hindu College was incorporated. Planned on a more ample and generous scale than any other college that had yet been established in India, it was designed to be the backbone of the new University; and it is worth noting that, when the University was founded two years later, the reason put forward for the failure to establish a series of university professorships such as the despatch had recommended, was that the ample endowments of Presidency College met the need.[1] It would appear, therefore, that at the time of its foundation Presidency College was not intended to be merely a self-contained teaching institution parallel with other colleges; it was meant, in some way never defined, and certainly never realised, to supplement and assist the work of the other colleges.

28. But Presidency College did not suffice to meet the need. In 1872 the Zilla School at Rajshahi in Northern Bengal was developed into a second-grade college, and in 1878 into a first-grade college. It is noteworthy that in this instance the stages of progress were rendered possible by large local benefactions,[2] to which there had hitherto been little parallel elsewhere.[3] New Government colleges, also, were founded in Bihar and Orissa, then parts of the Province of Bengal; but with these we are not concerned. The important point is, that while indigenous enterprise was bringing about an extraordinary expansion of secondary schools, the provision of facilities for higher training for the increasing number of matriculates was, until 1879, still left wholly to Government and to the missionaries.

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[1] See the report of the Committee on the foundation of the University.

[2] The foundation of the college was rendered possible by an endowment yielding Rs. 5,000; the advance of 1878 by a subscription of Rs. 1,50,000.

[3] There were instances, not on so large a scale, at Krishnagar, Midnapur and Chittagong. In all these cases the contributions were given on the distinct understanding that the colleges should be managed by Government, and the contributions made on this condition were much larger than any obtained by private institutions.

29. How considerable was the increase in the number of degree students during this period is sufficiently shown by the figures. In 1854 there were 129 students in Government colleges in Bengal, Bihar and Orissa, and an unknown, but much smaller, number in the missionary colleges. In 1882 the students in the Government colleges numbered 2,394, the students in the non-Government colleges 1,433, a total of 3,827. This was a remarkable development for less than a single generation.

30. The last few pages have been devoted to an analysis of the progress in the number of students and of teaching institutions which resulted from the adoption of the policy of 1854. It is now necessary to turn to the other side of the story—the organisation of higher teaching by the establishment of the University in 1857. It is possible and natural to adopt this order, because the establishment of the University did not in itself involve any increase in the teaching resources of the province, or in the opportunities of study available for students; but only the institution of a series of administrative bodies for the definition of curricula and the conduct of examinations, and, by these means, for the regulation and supervision of the work of the colleges, to which the function of teaching was wholly reserved.

31. We do not here propose to discuss in detail the constitution given to the new University. It must suffice to say that from the first the ruling bodies of the University, the Senate, and its executive the Syndicate, were mainly drawn, not from among the teachers who were doing the actual work of training young Bengal, but from among distinguished administrators and public men: the list of its Vice-Chancellors includes many eminent names, not least that of Sir Henry Maine. Some leading spirits in the Calcutta colleges were of course included in the Senate; and a man like Duff was able to play a vitally important part in defining the policy of the University. But the teachers were present as it were by accident, not by right; and many of the colleges, especially those in the mufassal, were never represented at all.

32. There were three possible alternatives open to the organisers of the new University, given that they had to work with the existing material, and to recognise and make use of all the existing colleges. They might have used the University as a means of supplementing

the resources of the colleges, and of enabling them, in Calcutta at any rate, to co-operate by a system of inter-collegiate instruction. This method does not seem to have suggested itself to anybody; and the colleges were left as watertight compartments, each providing the whole of the instruction required by its students. Or, again, without interfering with the independence of the colleges, they might have organised the University upon a federal basis, treating every college as a partner, giving representation to all, trusting representative bodies of teachers to devise the schemes of study to be followed by their students, and perhaps allowing to the stronger colleges some measure of autonomy in the construction of their curricula and the conduct of their examinations. But this plan also was not mooted. The University was organised, in the manner suggested by the despatch of 1854, as a corporation quite distinct from the colleges wherein all the work of teaching was done; it dictated their curricula and conducted their examinations without consulting them. The only relation established between the University and the colleges was that of 'affiliation', whereby the 'affiliated' institution was licensed to provide instruction and to present candidates for particular examinations. The adoption of an 'affiliating' rather than a 'federal' basis for the University was no doubt suggested by the analogy of London. But there is a curious irony in the fact that London (except in regard to medical schools) abandoned 'affiliation' the very next year (1858) after her example had persuaded India to adopt it, and substituted for it a system of open examinations without regard to the candidates' place of education.

33. The power of granting or withholding affiliation ought to have implied the power and duty of exercising supervision over the staff and equipment of the colleges. But no such functions were imposed upon the University until 1904. Each college, once it was affiliated, was left to its own devices, and there was no guarantee that the degree of efficiency which had won for it its original recognition was maintained or increased. This was perhaps natural in the early years, when there were but few colleges, all of which were able to draw upon the resources of Government or upon the help of missionary organisations in the West. But at a later date, when colleges began to spring up in large numbers, the dangers became more apparent.

34. Ever since 1857 what is known as the 'affiliating' type of university[1] has been the dominating factor in the educational development of India. The most distinctive feature of the system is that it makes the University primarily an examining and regulating body, not a teaching body. And since one of the primary duties of a university of this type is to make regulations, these tend to become extremely elaborate, and the freedom of the teacher tends to be proportionately restricted.

35. As a mode of organisation for higher education such a system is open to many criticisms. In its earlier form, down to 1904, it rested upon the assumptions that a university might have as its primary functions the conduct of examinations and the definition of their subject matter; that by means of examinations and regulations alone the continued efficiency of teaching institutions could be adequately guaranteed; and that the duty of training men for life could safely be left to self-contained colleges organised primarily with a view to the preparation of candidates for an examination. But even within the formal limits of degree-subjects, teaching is so individual a business that it depends in a high degree upon the personality of the teacher, and for that reason the teacher ought to have great freedom, if he is to do justice to the varying needs of his pupils. In so far as he is denied this freedom, his sense of responsibility for the advancement of his students is apt to be weakened.

36. The traditional idea of a university, which has survived the test of centuries, is something far different from this. According to the accepted view of almost all progressive societies, a university ought to be a place of learning, where a corporation of scholars labour in comradeship for the training of men and the advancement and diffusion of knowledge. On this definition the Indian univer-

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[1] The term has received official sanction, and is, indeed, a convenient shorthand term. But like all such terms it is open to misunderstanding. Other universities 'affiliate' institutions; Calcutta University itself is 'affiliated' to the University of Oxford, and the modern universities of the West frequently 'affiliate' special institutions for particular kinds of work; but this does not mean that they are 'affiliating universities' in the Indian sense. We shall so far as possible because of this confusion avoid using the term. But wherever it is employed in this report it means a system in which practically the whole of the teaching for university degrees is normally given in self-contained colleges, according to curricula defined by university authorities over which these teaching organisations have, as such, no direct power. The lack of control over curricula by the responsible teachers is a characteristic feature of the system.

sities, in their first form, were no true universities. They were not corporations of scholars, but corporations of administrators; they had nothing to do directly with the training of men, but only with the examining of candidates; they were not concerned with learning, except in so far as learning can be tested by examinations. The colleges were the only 'places of learning,' and the system tended to weaken the responsibility of the stronger colleges and, under the conditions prevailing in India, to reduce them to coaching institutions. The University, being merely a group of administrative boards, had no direct contact with the real work of teaching; it could contribute nothing to strengthen the intellectual resources of the colleges, and little to stimulate free criticism and independent thought among teachers or students. With its uniform curricula, and its exaggerated emphasis upon examinations, the system reduced the colleges too much to the same pattern. It encouraged them, for the sake of economy, to limit their teaching to the ordinary conventional subjects, and to disregard those more practical issues to which the despatch of 1854 had attached so much importance; it often prevented the teacher within his subject from teaching the things he cared most about and understood best; it led the student to value the discipline of his training not for its own sake, but mainly as a means for obtaining marketable qualifications. In the long run such a system must have a sterilising influence.

37. Yet it must be recognised that the system afforded the easiest solution of the problem as it presented itself in 1857, and perhaps met the immediate need better than any other system could have done. Few of the colleges were yet ripe for that freedom of teaching which we have learnt to regard as the essence of university work. Clearly defined standards of attainment were needed, and a system of examinations can give these, even if in a rather mechanical way. The Indian universities were founded in the Mutiny year; and it was not to be expected, in the political and financial circumstances of that time, that Government should undertake any large and ambitious programme involving great expenditure. The new system gave to Government an impartial means of picking out young Indians of ability for the public service. It made use of all the institutions of various types which had grown up during the previous forty years, and gave them a real stimulus

and guidance. It immensely accelerated the conversion of the Hindu *bhadralok* to a zeal for western education, by opening to their sons widespread and easily accessible facilities for attaining university distinctions, labels which had a real and concrete value. And the evils inherent in the system did not become fully apparent for a long time, because the number of students was still small enough, in each college, to render possible that intimate contact between teacher and pupil which is (when the teacher is a good man) the most valuable element in any system of training.

38. By 1882 western education, with the affiliating university as its guardian, had fully taken root in India, and most completely in Bengal. The university degree had become the accepted object of ambition, the passport to distinction in the public services and in the learned professions. Of the 1,589 students who obtained arts degrees in the University of Calcutta between 1857 and 1882,[1] 526 had in 1882 entered the public service, 581 the legal profession, and 12 had become doctors:[2] the 470 who remained were, no doubt, largely employed as teachers in the colleges and the high schools. These were the modes of life most esteemed by the *bhadralok* of Bengal. A university career had obviously become the best career for the sons of the *bhadralok* to follow; and already the social value of western education was reflected in the fact that a man who had taken his degree, or even only passed the entrance examination of the University, had a definitely improved value in the marriage-market. Western education had made its way into the social system. All the principal leaders of Bengal society had now received some degree of western education, and could speak English. The time was approaching when the high school and college course would be accepted as the correct and orthodox course for every boy of the Hindu literate castes to follow.

39. But the results of the great revolution were yet deeper than this. All these thousands of students, two generations of the ablest sons of Bengal, had been taught to study in the English language. Undertaking this study in the first instance because of the practical utility of the language, they had all been forced to

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[1] Table printed in the *Report of the Bengal Provincial Committee* to the Education Commission of 1882, page 103.

[2] Most of the medical men had of course proceeded direct to medical degrees without taking arts degrees; there were 164 of these.

drink deeply from the wells of English literature, which is, beyond all others, the literature of liberty. The leaven of the thought of Bacon and Milton, Locke and Burke, Wordsworth and Byron, was working in the minds of Bengal, whose age-long ideals had been those of submission and self-renunciation, not those of freedom and individual initiative. Such ideas, difficult to assimilate with the traditions of the East, could not but have formidable and often perturbing results. With the political aspects of these results we are not directly concerned. But political ideas can never be separated from intellectual movements; and the generation after 1882 was to see the influence of the new currents of thought powerfully reflected in the development of the educational system.

III.—The Commission of 1882-83 and its results.

40. The third great era in the history of Indian education was marked by the Education Commission of 1882, which was appointed to review the working of the policy laid down in 1854, after an interval of nearly thirty years. Not that the decisions of 1882 had anything like the importance of those of 1854. In 1854 it was still possible for the course of educational policy to be effectively controlled by edicts from above; and the Governmental decisions of 1835 and 1854 had exercised a determining effect. But by 1882 the educational movement had obtained so great a momentum of its own that it was already, in Bengal if not in other provinces, beyond the control of the Department of Public Instruction. We have observed how this had come about, especially in the sphere of secondary education, during the decade preceding 1882. The Commissioners do not appear to have realised the significance of the change; in their report they nowhere explain it clearly, or analyse its causes; and, even if they had grasped it, they were, as we shall see, precluded by the terms of their reference from dealing with the problem as a whole. The importance of the Commission of 1882 is, therefore, not that it initiated any great new departure, but merely that it brought into prominence, and gave greater freedom of action to, forces which were already at work.

41. It is impossible to estimate aright the educational development of this period without considering it in the light of the concurrent political development. Fifty years' study of English literature, English history, and English political theories had made

the educated classes of India, and especially the *bhadralok* of Bengal, familiar with the phrases and forms of western politics, and had inspired them with the desire to reproduce in India the methods of self-government which seemed to be triumphant in the West. The Indian National Congress was soon to begin its sittings; it could never have met, or brought together in common consultation the representatives of all the races and languages of India, if the spread of English education had not created a common vocabulary and a common set of political ideals. English statesmen could not regard these ideals with disfavour, though they might doubt whether they could be rapidly realised; and Lord Ripon, the Viceroy who appointed the Commission of 1882, was also responsible for the important step towards self-government represented by the establishment of municipal councils and district boards.

42. Now, since, of all departments of public affairs, that of education had hitherto appeared—at any rate in the secondary sphere—to have aroused the keenest public interest, and the most spontaneous local activity, it seemed natural to endow the new local bodies with educational functions, such as had already been entrusted to the School Boards in England during the preceding decade. One of the main questions referred to the Education Commission, therefore, was the extent to which educational functions might be devolved upon the new local bodies. "It is especially the wish of the Government," ran the formal instructions of the Commission, "that municipal bodies should take a large and increasing share in the management of the public schools within their jurisdiction. The best way of securing this result should be considered by the Commission."[1]

43. But this was not the sole, or the main, function of the Commission. If India was to make progress towards self-government, there must be a wide diffusion of popular education, not merely among the already literate classes, but among the masses of the people. The despatch of 1854 had recognised the importance of primary education. The departments of public instruction which it brought into existence had laboured, with varying success, perhaps with greater results in Bengal than in any other province, to create a system of primary instruction, or, rather, to expand and improve

[1] Report of the Indian Education Commission, page 3.

the indigenous systems. But they had been hampered by two facts. On the one hand, the bulk of the available public funds were already ear-marked for colleges and high schools supported or aided by Government; on the other, it was not possible, in the elementary sphere, to count upon any such public interest or co-operation as had been so strikingly exhibited in the sphere of secondary education.

44. Since the available resources were 'extremely limited in amount,' no great expansion of primary education could be hoped for unless the pressure upon public funds of the other branches of education could somehow be relieved. The best means of achieving this seemed to be that "every available private agency should be called into action to relieve and assist the public funds." This was the policy laid down by the despatch of 1854, with its system of grants-in-aid; and the solution of the problem seemed to lie in a bold and courageous extension of this policy. The despatch of 1854 had suggested the gradual withdrawal of Government from direct responsibility for the conduct and maintenance of many of the institutions which it had founded. No steps had yet been taken in this direction; on the contrary, as we have seen, it had been found necessary to create new Government colleges. But now that private enterprise was beginning to be active in Bengal, if not elsewhere—not only in the creation of secondary schools, but in the foundation of new colleges,—the time seemed to have come when Government might begin to devolve most of its responsibilities for higher education upon private agencies, and concentrate its attention upon the primary field. The justification for this view was to be found in the belief that substantial funds would be forthcoming for the endowment of colleges and schools. At no point, either in the Government resolution appointing the Commission, or in the report of the Commission itself, was it suggested that the upgrowth of a system of schools and colleges wholly dependent upon the small fees which Bengal students could afford to pay would form a desirable solution of the problem. Yet this was the kind of system which was to result from the new policy.

45. The policy suggested by Government in the resolution by which the Commission was appointed was adopted *con amore* by the Commission itself; and the outstanding feature

of its whole scheme was its anxiety to find means, at every stage, for the enlistment of the co-operation either of local bodies or of private agencies in the conduct of education of every type. The new local bodies, wherever they existed, were to be charged with the responsibility of developing and organising elementary education under the guidance of the Department, and it was recommended that they should be required to spend a certain proportion of their revenues on this work; they were also to be empowered to conduct either secondary or collegiate institutions.

46. In the primary field alone Government was to regard it as its duty to undertake direct responsibilities for large expenditure, wherever necessary. In the secondary field it was to be made a rule that, apart from the maintenance of a single model school in each administrative district, Government should take no action except where it was met by local effort, and its wotk was to be (apart from the model schools) confined to the distribution of grants-in-aid, and the inspection of schools, aided or unaided, the maximum grant being in no case more than one-half of the entire expenditure. In the collegiate field the existing Government institutions were to be divided into three classes. The first class was to consist of "institutions on which the higher education of the country mainly depends," like Presidency College; these were to be still maintained by Government. The second class was to consist of colleges that might be advantageously transferred, under adequate guarantees, to 'bodies of native gentlemen'. In this class the Krishnagar and Rajshahi colleges were included. The third class was to consist of colleges which ought to be suppressed, unless some local body was formed to carry them on. In this category were included the colleges at Midnapur, Berhampur and Chittagong. In general, therefore, the policy recommended by the Commission to the provincial Governments was that they should withdraw as rapidly as possible from the direct control of secondary and collegiate institutions, except for the maintenance of a few models; and that, for expansion in these spheres, private and local effort should be trusted, and encouraged to the maximum extent.

47. The principles laid down by the Commission of 1882 were on the whole faithfully observed by the Government of Bengal. Indeed, in the main, they had already been acted on, and in several points of view Bengal appears as the model province in the report

of the Commission.[1] It remains to enquire what were the effects of the policy thus defined, during the twenty years which elapsed between this Commission and the Universities Commission of 1902. With the results in the primary sphere we are not here concerned; but it may be briefly noted that the effects of thrusting responsibility upon the local boards were not altogether happy; and instead of an increase, there was a decrease in the expansion of primary relatively to secondary education during the period. The preponderant and disproportionate development of the secondary branch, which the Commission had deplored and hoped to cure, was actually intensified between 1882 and 1902. What is more, the growth of the higher types of secondary schools was proportionately far greater than the growth of the more elementary types; there was actually a decrease in the type of schools known as 'middle vernacular'.[2] Nothing could more clearly show that it was not education at large, but English education, and especially English education preparatory to the university course, which aroused the enthusiasm of Bengal.

48. But the growth in the number of English schools (which does directly concern us, since these schools formed the feeding ground of the University) was indeed remarkable under the system of 1882. The number of high schools in Bengal, Bihar and Orissa, rose from 209 in 1882 to 535 in 1902. The total number of English schools, including those of the middle grade, many of which aspired to become high schools, was in 1902 no less than 1,481, and they employed over 12,000 teachers in the instruction of nearly 250,000 boys. But only 54 of these schools were under Government management, only 35 under the control of local boards; all the rest were privately managed, and more than one-third of them, in 1902, were not even in receipt of grants, partly because the available funds were insufficient, but partly also because many of these schools could not, or would not, accept the conditions laid down by the Department. Only a minute proportion of the teachers were trained for their work; one-sixth of them had no qualifications capable of being defined. They were paid at miserable rates. In the best high schools under public control, the salary scale ranged from Rs. 25

[1] Report, especially page 369.

[2] The number of pupils in vernacular secondary schools decreased from 64,000 in 1886 to 53,000 in 1902. Fourth Quinquennial Review of the Progress of Education in India 1897-98 to 1901-02, Volume II, page 72.

to Rs. 200 per mensem; in the privately managed schools, from Rs. 5 to Rs. 78.[1] The average annual cost of a boy's training in a Bengal secondary school was only 18 rupees as compared with 38 rupees in Bombay, 36 in the United Provinces and 23 in Madras.[2] Manifestly it was impossible that good work should be done under such conditions and at so low a cost. Boys could be crammed for an examination; except in rare instances they could not be given a sound training. It was because the salary rates for teachers were so low, and the demands for accommodation and equipment so unexacting, that venture schools could be run in large numbers on the pupils' fees, though these were lower in Bengal than in any other province. That is to say, the education in these schools was cheap because it was bad, and bad because it was cheap.

49. In theory it ought to have been the business of the Department of Public Instruction to see that these evils were remedied. But the Department was quite unable to undertake this function. Its inspectorial staff was neither large enough to keep in touch with all the schools, nor was the staff as a whole organised for this grade of work, even if it had had the power to undertake it. But it had not the power. The Department had, and could have, no influence over any schools which did not accept grants-in-aid: even upon those which did, it could not impose very exacting conditions, lest they should be placed in a disadvantageous position as compared with the private venture schools, and be tempted to resign their grants and live on fees. Over the venture schools the only controlling authority was that which was exercised by the University through its entrance examination, which controlled the curriculum of the higher classes in all the high schools, Government, aided, and unaided alike.

50. The University did its best to meet its responsibility by refusing to admit candidates from any school which it had not recognised. But university recognition, although it gave a valuable standing to the schools, was loosely and easily given. This was inevitable; because the University had no machinery for inspecting or supervising the schools, and its governing bodies were not constituted with a view to this kind of work, and were loaded with

[1] Fourth Quinquennial Review of the Progress of Education in India, 1897-98 to 1901-02, Volume II, page 71.

[2] *Ibid.*, page 76. The relatively low figure of Madras was due to the very great educational activities of the missionaries in that Presidency.

a multiplicity of other labours. Moreover the University necessarily fixed its attention solely upon the qualifications of candidates for academic work. It could not take into account all the many aspects of school life which cannot be tested in an examination room. It could not consider the suitability of the school course for those boys whose education would end when they left school; and who are in all countries, even in Bengal, the great majority.

51. The effect of this controlling influence of the University, and of the comparative impotence of the Department, was remarkably illustrated by the fortunes of a scheme of reform to which the Commission of 1882 attached great importance. The Commission felt strongly the danger of a too purely literary course of study such as circumstances and tradition were imposing upon all the pupils in the high schools. "It has been felt in all provinces," they report, "and urged by many witnesses, that the attention of students is too exclusively directed to university studies, and that no opportunity is offered for the development of what corresponds to the 'modern side' of schools in Europe. It is believed that there is a real need in India for some corresponding course which shall fit boys for industrial or commercial pursuits, at the age when they commonly matriculate, more directly than is effected by the present system. It appears to be the unquestionable duty of that Department of State which has undertaken the control of education, to recognise the present demand for educated labour in all branches of commercial and industrial activity, and to meet it so far as may be possible with the means at its disposal."[1] Accordingly the Commission recommended that "in the upper classes of high schools there be two divisions; one leading to the entrance examination of the University, the other of a more practical character intended to fit youths for commercial or non-literary pursuits." And in order that a solid inducement might be given to boys to follow these courses, they recommended that "the certificate of having passed by the final standard ... of either of the proposed alternative courses, be accepted as a sufficient general test of fitness for the public service."

52. There can be no two opinions as to the desirability and importance of such a scheme of practical education as was here advocated. But the attempts which were made to give effect to the

[1] Indian Education Commission Report, 1882, page 220.

recommendation by the establishment of special classes preparatory for commercial or industrial careers, and not leading to the university entrance examination, were unsuccessful. And the reasons were obvious. In the first place, the institution of these alternative courses would cost money, which few of the schools could afford to spend. In the second place, the abler and more ambitious boys were not in the least likely to take up, at the age of fourteen or earlier, a course of study which must necessarily exclude them from the University, the goal of all ambitions in Bengal. The suggested bribe of easy admission to the public services was not likely to have any effect. It could only have been effective if boys who took the matriculation course were excluded from Government posts. This would not only have been unfair, it would have deprived the public services of their ablest and most industrious recruits. The Commission thrust upon the departments of public instruction the responsibility for making these courses successful. In doing so they showed that they had not realised the impotence to which the departments had been reduced by the recent developments of the educational system. As things were in Bengal, it was only by the co-operation of the University that the proposed scheme could be made effective ; and the Commission was actually precluded by its terms of reference from dealing with questions of university organisation, curricula and examinations. That is to say, they were precluded from dealing with one of the main roots of the problem on which they were asked to report.

53. There was only one mode in which the growing evils and deficiencies of the school system of Bengal, and the waste of young talent which they were causing, could be satisfactorily dealt with. This was the co-ordination and strengthening of all the agencies that were concerned in the control of the schools—the Department, the University, and the various public interests involved. There could be no satisfactory solution until the unhappy division of powers, which was leading to such unfortunate results, and which was impairing the influence both of the Department and of the University, was brought to an end. Some sense of the need for such a reform was shown in the proposal, debated by the Commission, that there should be instituted in each province " a consultative Board of Education, consisting of representatives of the University, of the Department of Public Instruction, and of the

community at large."[1] This reform was advocated on the ground that "it would, on the one hand, bring about and maintain a complete understanding between the Department and the University; and, on the other, it would be in a position, as representing the feelings and wishes of the community at large, to aid the Department with information and advice on educational questions of every kind." The Commission rejected the proposal, mainly on the ground that such a Board would become a sort of debating society which would only retard action. It did not consider the possibility of entrusting to such a Board the combined functions of control over secondary education exercised by the University on the one hand, and by the Department on the other. It could not consider this possibility; because the powers of the universities were definitely excluded from its purview. But it is permissible to conclude, from the general tenour of the report, that if the Commission had been free to deal with the problem as a whole, it would have seen the necessity for some organised and co-ordinated control of the whole school system.

54. Although the Commission of 1882 was debarred from considering the organisation and working of the univessities, and—a still more remarkable omission—from dealing with professional and technical training, they were not excluded from dealing with the 'arts colleges' and the mode in which they were administered; and the general policy which they recommended therefore had a material bearing upon the development of university education. There was, indeed, one important question bearing upon the organisation of 'arts colleges' upon which the Commission, or at any rate their provincial committee for Bengal, held clearly defined views to which the restriction of their reference forbade them to give effect. "If educational institutions in this country," the Bengal Committee writes,[2] "are classified in accordance with systems which obtain in Europe, those only will be called colleges which teach up to recognised degrees, those high schools which teach up to the first arts, and those middle schools which teach up to the present entrance standard;" and they argue that "in the classification now made, under which institutions teaching up to the first arts standard are called colleges," there was a departure from the

[1] Report, page 318.

[2] Bengal Committee's Report, page 14; *see* also page 87.

intentions of the great despatch of 1854. In other words, they held that the first arts, or intermediate, standard represented the real line of division between university and school work, and that the second-grade college ought to be regarded as the highest form of secondary school.

55. But they could not discuss this question fully, or make recommendations on it, because this would have been to invade the province of the University. They could not discuss the relation of collegiate courses of study to the practical needs of the students and of the community. They could not discuss the value or appropriateness of these courses of study in themselves. They collected a great mass of statistics about colleges and their work. They spoke with a lukewarm enthusiasm about the effects of the system upon the students.[1] They made certain proposals designed to remedy the defects which they perceived; they urged, for example, that a 'moral text-book' should be compiled, and that the principal or one of the professors in every college should deliver to every class a course of lectures on the duties of a man and a citizen. They commended the benefits of properly organised residential facilities, but made no suggestions for their expansion. But although they fixed their hopes upon the "system of instruction becoming more thorough and more scientific," they had no measures to recommend whereby it could be made so; for that would have been to trench upon the sphere of the University.

56. Indeed, their main policy, that of reducing Government expenditure in this sphere, and encouraging local and private effort, was essentially irreconcilable with any large scheme for deepening and strengthening the intellectual vitality of the colleges. Extensive, not intensive, growth was the necessary result of the

[1] Report, page 300. "Of superficial learning, and of pretentious self-assertion manifested in a variety of ways, there has no doubt been plenty. It would be strange if it were otherwise. For in no country under any circumstances has there been equal or similar encouragement for such and other faults. The surroundings of the Indian student are not always favourable to the development of a high type of character. Neither in the labour nor in the recreations of those about him does he find much that sorts with his intellectual pursuits....All the greater, therefore, is the credit due to him when he rises above the influences by which he is surrounded; and, whatever his weaknesses, it may be safely said that they who best know the educated Indian have the most to urge in his favour. It may also safely be said that .... some of these faults were born of the time and the circumstances; some had root in a system of instruction now everywhere becoming more thorough and more scientific."

policy which they recommended; and most of the new colleges which were stimulated into existence by their policy during the following twenty years were necessarily weak, understaffed and incapable of affording the individual attention to the needs of the student, or of providing the varied courses of study, practical as well as literary, which were necessary for the healthy development of Bengal. The main feature of the twenty years following 1882 was to be the rapid creation of colleges which depended mainly or wholly upon fees, and throve as coaching institutions, rather than as places of learning. That is the dark side of the picture. The more favourable side is that, under the new conditions, the *bhadralok* of Bengal, more fully than ever before, threw themselves into western education, and adopted the course of high school and university as the natural and proper course to be pursued by the literate castes. Unfortunately, the methods and traditions established during this period made the adoption of a new policy, of individual and practical training, and of real learning as distinct from examination-coaching, exceedingly difficult.

57. The effects of the 1882 policy upon the development of the university system may be very rapidly reviewed, since they consisted in the transfer of Government colleges to non-Government control and the creation of a number of new colleges under private management.

58. In the first place, two Government colleges, whose suppression the Commission had recommended unless local agencies were willing to undertake their management, were transferred to local control. The Midnapur College, founded in 1873, was transferred in 1887 to the control of the municipality, and forms the only Bengal example of a college managed by a local authority. Since the transfer it has remained a second-grade college of a modest type, and has subsisted on fees and Government grants, the support given by the local authority averaging only about Rs. 1,000 per annum. In 1887 the Berhampur College, which had passed through many vicissitudes, was transferred to the control of the Maharajah of Kasimbazar, with a board of management. So generously have the Maharajah and his successor regarded their trust that this college has developed into one of the largest in the Bengal mufassal, and draws its students from every part of the Presidency. Happily the Government of Bengal did not take the advice of

the Commission in regard to the other colleges included in its lists. If it had done so, the Chittagong College, which meets the needs of a large and isolated area, would have been suppressed; and the college at Rajshahi, which is a real centre of learning for Northern Bengal, and has, in a degree unknown elsewhere, attracted the generosity of local benefactors, might have shared the fate of Midnapur.

59. The main result of the policy of 1882 was to stimulate the foundation of private colleges in all parts of the Presidency. In every case these colleges grew out of previously established high schools, and were, for a long time, not separated from them either in buildings or staff. In the majority of cases the mufassal colleges were founded by local zamindars, who provided the buildings and in some cases contributed to the upkeep; but the cost of maintenance was nearly always met for the most part out of fees and small Government grants, and revenue and expenditure were commonly made to balance by the payment of exiguous salaries to the teachers, and by the avoidance of subjects of study which necessitated costly equipment. In some cases the colleges were purely proprietary institutions, run by the head master of the school from which they sprang. Sometimes they were run at a loss, which was made good from the current profits of the school; but as the flood of candidates for degrees increased with the increase of secondary schools, the colleges also became profitable, at any rate in their more elementary departments. One of the outstanding features of all these new colleges was that, while, like their predecessors, they gave English education, unlike them they gave it without the aid of Englishmen, their students rarely or never having any contact with anyone who spoke as his native tongue the language in which all their studies were conducted.

60. It may be convenient to catalogue briefly the colleges of this type which were founded between 1882 and 1902 in Bengal—omitting Bihar and Orissa, Burma and Assam. In the metropolitan city of Calcutta the period saw the institution of four colleges: the Ripon (1884), the Bangabasi (1887) and the Central (1896), three proprietary colleges linked with schools, of which the two first rose to the first-grade in 1885 and 1890 respectively; and the St. Paul's Cathedral Mission College of the Church Missionary Society,

refounded in 1899.[1] The Ripon and the Bangabasi Colleges, along with the Metropolitan Institution[2] and the City College, which had been established at the close of the previous period, were to develope into immense and populous institutions. In the mufassal the results of the period were even more remarkable. In 1882 was founded the Burdwan College, maintained by the Maharajadhiraja; in 1884 the Jagannath College at Dacca, alongside of the flourishing Government College in that town; in 1886 the Victoria College, Narail, in the district of Jessore; in 1887 the Uttarpara College, in the district of Howrah, just across the river from Calcutta; in 1888 the Cooch Behar College, founded by the Maharaja in commemoration of the Queen's Jubilee; in 1889 the Broja Mohan College, Barisal; in 1897 the Krishnachandra College, Hetampur, in the district of Birbhum; in 1898 the Edward College, Pabna; in 1899 the Victoria College, Comilla, in the district of Tippera; and in 1901 the college at Mymensingh. It is worth noting that the last three colleges were all in Eastern Bengal, which had hitherto been less affected by the movement than the western part of the Presidency. To-day it is from Eastern Bengal that the largest number of students come; the beginning of the demand for education in that relatively isolated but fertile and populous region is an event of no small importance.

61. The very rapid increase in the number of high schools and colleges which had been encouraged by the system of 1882 was, of course, reflected in an immense increase in the number of university students. The total number in 1882 had been 3,827, of whom 2,394, or not much less than two-thirds, were students in Government colleges. The total number in 1902 was 8,150, of whom only 1,937, or much less than one-fourth, were students in Government colleges. In other words, practically the whole of this increase, which had already placed Calcutta in the position of being the numerically largest university in the world, was due to the non-Government colleges. And no less than 4,541—more than the total number of university students twenty years earlier —were studying in unaided colleges, which depended for their existence almost entirely upon the extremely low fees of the students, and were hence incapable of providing adequate equipment.

[1] It had been started in 1865 but discontinued.

[2] Now known as the Vidyasagar College.

IV.—The Commission of 1902 and the Universities Act of 1904.

62. The extraordinarily rapid development both of high schools and of colleges which had taken place since 1882 imposed upon the university system, unrevised since 1857, a very severe test; and, in the judgment of the most competent observers, it broke down under the strain. In the first place, experience showed that the governing bodies of the universities were very ill suited to the complicated and exacting work they had to perform. No limit had been placed upon the membership of the supreme body, the Senate, in which all powers were vested. The senates of all the universities had consequently been swollen by very numerous nominations of men who were appointed by Government often for purely honorific reasons, and not on the ground of their capacity for, or interest in, academic work. The members of the Senate sat for life. Many were busy officials, many were ambitious pleaders, anxious for opportunities of winning status and popularity. And this large and varied body had, in Bengal, become the chief arena of public discussion. It was only by accident that the teachers, upon whom the main work of the University fell, were represented in the Senate or its executive, the Syndicate; many teachers of distinction never had an opportunity of making their voices heard; many colleges never obtained representation. The nominally Academic Bodies, Faculties and Boards of Studies, which were responsible for drafting schemes of study and suggesting books, were appointed by the Senate from among their own number, and often consisted largely of men who had no special knowledge of the subjects they had to deal with.

63. That an organisation of this character should be entrusted with the supervision of all the high schools and colleges throughout the area of the University could not but lead to unhappy results. The multiplication of inefficient venture-schools, badly staffed and often most unhealthily housed, yet officially recognised by the University, was one of these. Another was that the collegiate system had fallen into disorganisation. There was no adequate consideration, before a college was affiliated, of its staff, equipment, and general fitness to undertake the training of young men. No clearly defined standards were imposed either in regard to staff or to equipment. Some colleges were profit-making enterprises; and the temptation to the proprietor to starve at once his

teachers and his students was dangerously strong. No requirements were made as to the proper supervision of students' residence; and the evils which had grown up as a result of the flocking of students to Calcutta threatened alarming consequences to the moral and social life of Bengal. Thus, while the University was so organised as to do nothing either for the advancement of learning or the provision of efficient teaching, it also did nothing directly to help the colleges, to which these functions were left, in dealing fairly by the young men under their care.

64. Under the old régime, which had lasted until the end of the 'seventies,' the absence of efficient university supervision had not seriously mattered, because the colleges which then existed were of manageable size, commonly imposed a limit upon the number of students they would accept, and were on the whole not ill equipped, being all either Government institutions or missionary colleges, aided by Government as well as by their home organisations. But the situation had now altogether changed. The policy of 1882 had encouraged the rise of numerous unendowed colleges, dependent upon the fees of students, and therefore tempted to admit all comers without limit or enquiry; and at the same time the Commission of 1882 had not suggested, and indeed, had no powers to suggest, any means of strengthening the control of the University over the colleges. In fact university control had become less instead of more efficient, owing to the change in the character of the Senate, and the increase in its numbers. It was widely believed that the standards of attainment represented by the examinations of the University had shown a steady decline. Such assertions are difficult to test or prove; but the enormous numbers of ill trained candidates who were now being sent in, from the schools to the entrance examination, and from the colleges to the higher examinations, made this conclusion appear probable. In any case, it was difficult for examinations on so gigantic a scale as those of Calcutta now were, to be efficiently conducted.

65. All these considerations made it appear to be urgent that the university system, left untouched by the Commission of 1882, should be overhauled; and these were the main reasons for the appointment of the Universities Commission of 1902. But another motive came to reinforce these. The University of London, the model on which all the Indian universities had been formed, was

in the throes of reconstruction. Since 1884 there had been a growing opinion that the University ought to undertake teaching functions, and that it was no true university unless it did so. Two Royal Commissions, in 1888 and in 1894, had reported that a reconstruction of the London system was necessary; both, but especially the last, had emphatically asserted that it was the duty of the University, without being deterred by considerations affecting outlying students and colleges working for London degrees, to co-ordinate the existing teaching resources in London itself, and to supplement them. And in 1898 an Act of Parliament had provided for the transformation of the University of London into a teaching university, while maintaining its system of examinations for external students. Its provisions were by no means final; before many years passed there was to be another Royal Commission which dealt with the whole problem afresh. But the changes made in London as a result of the Act of 1898 had an inevitable echo in India, where the conditions were in many respects similar to those of London. In 1902, as in 1857, the policy of London seemed to be the latest word of educational statesmanship.

66. There were four features of the London changes whose influence is directly perceptible in the Indian discussions. The first was the assertion that every university ought to be a teaching university. The second was the principle that no college should be allowed full privileges unless it was thoroughly well staffed and equipped. The third was the principle that teachers must always be intimately associated with the government of the University. The fourth was the contention that the supreme governing body of the University—called, in London as in India, the Senate—ought not to be too large. Thus once again, as so often before, educational controversy in England had its echo in India.

67. By a curious irony, the Commission of 1902 presented its report just the year before the great discussion of the principles of university organisation which accompanied the disruption of the federal Victoria University of Northern England in 1903: it is impossible not to recall the fact that the affiliating universities were set up in 1857, the very year before affiliation, as the basis of university organisation, was abandoned in London. If the Commission had followed instead of preceding 1903, it is possible that it would not have come to the decision not to discuss the

fundamental problems of university organisation, but to deal only with the immediate difficulties of the Indian system; it is possible also that having observed the rejection in England of the federal system as being, in some conditions at any rate, difficult to work and not the most favourable to rapid growth, it would have considered whether the existing Indian system showed any greater promise of adaptability.

68. But the Commission did not in its report discuss these fundamental questions. It did not ask whether the affiliating system ought ultimately to be replaced by some other mode of organisation, or suggest means whereby a transition to a new system might be gradually made. On the contrary, it assumed the permanent validity of the existing system, in its main features, and set itself only to improve and strengthen it.

69. Nothing illustrates this more clearly than the fact that in considering the projects of new universities then beginning to be advocated in India, it took for granted that they must be organised upon an affiliating basis, and rejected them mainly on the ground that there must be many colleges before there could be a university. Thus in Burma there were only two colleges, both in Rangoon. To any body of men accustomed to the working of European universities, this would have appeared a positive advantage, since it opened the possibility of organising a strong centralised university, instead of distributing the resources of the province over many weak institutions: to the Commission of 1902 it seemed to make the idea of a university in Burma unthinkable. Again, a university was desired in Nagpur: the Commission condemned the idea, on the ground that even if colleges were set up in every likely place throughout the Central Provinces, they would at the most only number eight.

70. The report of the Commission, therefore, and the Act of 1904 which was based upon it, aimed not at any fundamental reconstruction of the Indian university system, but at a rehabilitation and strengthening of the existing system. And just as the Commission of 1882 was excluded from considering university problems, so the Commission of 1902 was excluded from directly considering school problems: with the result that, equally with its predecessor, it was unable to deal with the problem as a whole.

71. The recommendations of the Commission fall into five main categories. It recommended—

(*i*) The reorganisation of university government.
(*ii*) A much more strict and systematic supervision of the colleges by the University, and the imposition of more exacting conditions of affiliation.
(*iii*) A much closer attention to the conditions under which students live and work.
(*iv*) The assumption of teaching functions by the University, within defined limits.
(*v*) Substantial changes in curricula, and in the methods of examination.

The first, second and fourth of these groups of recommendations were, with some changes, embodied, in general principle, in the Act of 1904; the third and fifth were necessarily left to be dealt with in detailed regulations, which also wrought out in detail the rest of the new system.

72. These regulations, indeed, must be taken along with the report and the Act if we are to understand the character of the new departure. The drafting of them was left by Government, in the first instance, to the new Senate. But as the Calcutta Senate had, after two years, found it impossible to complete this work, it was referred to a small committee presided over by Mr. Justice (now Sir) Asutosh Mookerjee, which completed its task in two months. It was a very great labour, whose results fill no less than 320 pages of the University Calendar. The regulations were, of course, conditioned by the terms of the Act; and they were themselves submitted in detail to the approval of Government. They constitute a thorough, careful and honest attempt to carry out in detail the principles laid down in the Act; and, while it would be inappropriate to analyse them in detail, they form a very important part of our material for the analysis of the new system.

73. In regard to government, the Senate was still retained by the Act as the supreme governing body, and, indeed, as the legal 'body corporate,' of the University. Elsewhere all the organised bodies of a university, taken together, are regarded as the body corporate; in India those teachers who do not happen to be members of the Senate are, in a legal sense, not members of the University at all. The numbers of the Senate were reduced; in the case of

Calcutta to a maximum of 100 and a minimum of 50 ordinary fellows, together with not more than ten *ex-officio* fellows. This *ex-officio* element included the directors of public instruction in all the provinces served by the University. Ten members were to be nominated by the faculties (themselves mainly composed of senators) and ten by the graduates; the remainder were to be nominated by the Chancellor, who was to be the Viceroy. At least two-fifths of the members of the Senate were to be teachers; but no provision was made for the direct representation of the teachers, or of particular subjects, or of the colleges as such.

74. Under the Senate were to be Faculties, responsible for curricula, etc.; they were to consist of members of the Senate assigned by the Senate itself, together with a limited number of co-opted members. But there was no security that even the most important teachers should be included. The executive body of the University, called the Syndicate, was the body in which reconstruction was perhaps most drastic. It was to be a small body, not more than seventeen in number. Besides the Vice-Chancellor, its Chairman, it was to include the Director of Public Instruction; and it was provided that the Syndicate should consist largely of college teachers, who were to number at the minimum one less than a majority, while they might constitute an actual majority. But only teachers who were members of the Senate were eligible.

75. The Act thus, in fact, gave to teachers, or to those teachers who by election or nomination became members of the Senate, a real voice in the government of the University. But the teachers as a body were given no place on the Senate, nor were the colleges as such; even the professors whom the Act empowered the University to appoint were in no way recognised in the scheme of government; and no means were provided for ensuring that the ablest and most stimulating teachers should be ensured of any power of influencing university policy. It was therefore only a half-hearted and imperfect advance which was made towards that constant and vital consultation of the teachers which is of the essence of a genuine teaching university.

76. But perhaps the main result of the Act was to make the control and supervision of the Government over university policy more direct and effective than it had hitherto been. Not only was the Viceroy, as Chancellor, empowered to nominate an overwhelming majority of the Senate (a possible 80 of the non-official

members); his approval was made necessary for the election of the remaining 20; and the Government of India retained the power, conferred upon it by the Act of 1857, of cancelling any appointment. Moreover, the Vice-Chancellor, the chief executive officer of the University, was to be appointed by the Government; all regulations of the University must be submitted to the Government for its approval; all affiliations and disaffiliations of colleges must be finally determined by it; all professors, readers and lecturers of the University must be approved by it; in short, almost every detail of university policy was made subject to its supervision.

77. The object of these provisions was no doubt to prevent a renewal or extension of the evils which had come into being during the previous twenty years. As we shall see, they have not been successful in this end. The universities of India are, under the terms of the Act of 1902, in theory, though not in practice, among the most completely governmental universities in the world. Since the Act, the Government of India has been removed from Calcutta to Delhi. It is therefore a Government 1,000 miles away from the seat of the University, and not itself engaged in any kind of academic work, which is ultimately responsible not merely for the general supervision and assistance which such a Government, by its very aloofness, may be well able to give, but for the direction of university policy, and for almost every detail of university action. It may perhaps be permissible to suggest that such a system is apt to undermine the sense of responsibility of the governing bodies of the University. A university which deserves the name ought to be so constituted that it can be trusted to carry on its purely academic affairs without constant interference.

78. One of the objects of the Act of 1904 seems to have been the production of a greater harmony between the University and the Department of Public Instruction in the regulation of schools; and it was doubtless in part for this reason that four directors of public instruction were made *ex-officio* members of the Senate, and the Bengal Director a permanent member of the Syndicate. The Commission had recognised[1] the importance of the subject, and had noted that "the universities have no adequate machinery for ascertaining the condition of schools, and at Calcutta the Syndicate has sometimes insisted on recognising new venture schools without

[1] Report, page 20.

due regard to the interests of sound education and discipline." They had recommended that the University should only recognise schools recognised by the Department of Public Instruction, and this principle was in fact adopted at Allahabad and in the Punjab. But it was, in Bengal, an impracticable condition, because the Department only had contact with the Government and aid-receiving schools, the remainder never even submitting to inspection.

79. Accordingly the new system attempted a compromise. Elaborate provisions were laid down in regulations as to the conditions which a school must fulfil before receiving recognition. It was provided that reports on these points from the Government Inspectors, submitted through the Director, now an *ex-officio* member of the Syndicate, should usually be accepted as sufficient. But to the Syndicate—a body already burdened with the whole complex business of administering an immense university—was reserved the final power of decision. The new system was an improvement on its predecessor. But it has not worked, and it could not work, with perfect smoothness; if for no other reason, because the Syndicate was not a body specially qualified for such work, since it was only by accident that it could include any members experienced in school conditions; and also because the relations between the Syndicate and the staff of the Department, who were called upon to do its work, but were not its servants, could not but be delicate. The new system perhaps dealt with the problem—one of the most difficult and important in Bengal—as well as it could be dealt with in a measure which was concerned only with university organisation. But for a wholly satisfactory solution a far more intimate co-ordination of the interests involved was needed.

80. The second feature of the new system was the introduction of a stricter and more systematic regulation of the colleges. One aspect of this problem was the necessity of making a clearer definition between school and college. "When a college has grown out of a high school," the commission reported, "we think it important that the college classes should be conducted in a separate building and under separate management,"[1] and although this provision was not incorporated in the Act, it has been gradually put into force by the exercise of the powers of recognition and affiliation vested in the University. This constitutes a real reform.

[1] Report, page 19.

81. But its application was difficult in the case of second-grade colleges, which were generally "only high schools which have added two college classes to their curriculum, in order to keep their pupils two years longer." Different views were possible as to the desirability of this arrangement. In the *Fourth Quinquennial Review of the Progress of Education in India, 1897-1902*, which was written by Mr. R. Nathan, the Secretary of the Commission, it was stated that "the first half of the course for the degree of B.A. is in reality a prolongation of the school course, and from this point of view the complete Indian school is the second-grade college teaching up to the standard of the first arts or intermediate examination of the University."[1] In these opinions Mr. Nathan was in agreement with the Bengal Committee of the Education Commission of 1882. If he and they were right in thinking that the intermediate course was really school work, it would appear obvious that it would be best carried on by school methods, that the linking of it with the high school was by no means undesirable, and that the real line of diversion ought rather to be at the intermediate than at the matriculation stage. In any case, the second-grade college would be, on this view, a very useful type of institution.

82. But the Commissioners do not seem to have shared this view. They assumed that the intermediate work must be regarded as pure university work; and recommended "that the universities should decline to affiliate new second-grade colleges. In the case of those now affiliated," they continued, "we consider that the aim of Government and of the University should be to effect gradual separation, so that university students should receive their education in colleges properly so called. Those second-grade colleges which cannot hope to rise to the first grade ought, we think, to revert to the position of high schools."[2] In other words, the second-grade college, instead of being regarded as a useful institution—'the complete Indian school,' in Mr. Nathan's words,—was to be condemned because it did not undertake the whole university course.[3]

83. The policy of hostility to the second-grade colleges thus defined was not, in fact, adopted by the Government of India.

[1] Quinquennial Review of the Progress of Education in India, 1897-98 to 1901-02, pages 93-94.

[2] Report, page 19.

[3] It ought to be noted that Sir Gooroo Dass Banerjee recorded his dissent from this recommendation, very much on the ground here stated: Report, page 79.

Every provincial Government save one has declared that it would be a mistake to dispense with these institutions; and one of the reasons for this view undoubtedly is that, just because the intermediate work is largely school work, it can be reasonably well done by modest institutions near the homes of the students, which will make it unnecessary to drain away boys from their homes, at the early age of 16 or 17, to the often unsatisfactory conditions of city life. The second-grade college, therefore, survived in spite of the condemnation of the Commissioners. But it had been told that it was an inferior and undesirable institution; and that, instead of being content to do what it could do reasonably well, it ought to provide the whole of the teaching necessary to enable its students to take the B.A. degree. We cannot conceal our belief that this was an unfortunate conclusion.[1]

84. The recommendations of the Commission also led to other reforms in college organisation about whose desirability there was much less ground for doubt. It was laid down that every college must be provided with a governing body, in which representatives of the teachers must be included, and that it must be a public educational institution, the whole of whose income was expended for its own purposes. This provision (in theory, at any rate) should have brought to an end the evils of the profit-making proprietary colleges; it also introduced the principle of the participation of the teachers in academic administration in the sphere of the college as in that of the University, though only somewhat tentatively and ineffectively.

85. But the most important change in the position of the colleges was due to the new rules of affiliation. Instead of being affiliated in general terms, the colleges were henceforth to be affiliated in particular subjects, and up to defined stages of the curriculum; the Government, after report from the University, having the deciding voice as to whether any individual college had sufficient staff or equipment for teaching a given subject at a given stage; and all the existing affiliations were revised from this point of view. Moreover all colleges were to be open to periodical inspection and report, and all changes in their staff were to be reported to the University; which now obtained the power, subject to Government approval, not merely of totally disaffiliating a college—the only

[1] See Chapter XII, where this question is more fully discussed.

power it had earlier possessed, and one so extreme that it could not be exercised—but of disaffiliating it in a particular subject at a particular grade.

86. Unquestionably these provisions have led to great improvements in the staff and equipment of the colleges. But they could not be wholly satisfactory. In spite of its increased powers, the University could not in practice ensure that the teaching in the colleges was of adequate quality, or stipulate for a sufficient salary for the teachers. If the college made an unsatisfactory appointment in (say) English, the theoretical power of disaffiliation in that subject could not in practice be employed; because to disaffiliate a college in English would be to exclude all its students from practically all examinations, and to do this on the ground that one out of three or four teachers of the subject was insufficiently qualified must obviously be impracticable. So long as the college paid the whole salaries of its staff, and provided the whole teaching of its students, adequate control of teaching by the University was out of the question. At the same time, the attempt to make this control a reality involved, in some cases, an undue amount of interference with the freedom of the colleges. Strict rules such as the new regulations imposed, regarding the number of hours of instruction to be given in each subject, and the number of attendances to be exacted from each student, were intended, of course, as a safeguard against an insufficient provision of instruction, but they needlessly, and sometimes mischievously, tied the hands of the better colleges in dealing with the individual needs of their students. Such a provision as that which ordained that no teacher should teach more than a single subject was aimed against obvious abuses, but was liable to lead to unfortunate results in particular cases.

87. Even more important than the regulations affecting college teaching, from the point of view of the welfare of students, were the provisions now made in regard to students' residence: a problem which had been hitherto almost wholly disregarded, except in a few colleges. The Commission had urged the need for attention to the subject, and suggested that "in course of time...the provision of quarters for all students not residing with parents and guardians may be made one of the conditions of affiliation." Accordingly the Act laid it down, as one of the conditions on which a college had to satisfy the Syndicate, that "provision will be

made in conformity with the regulations for the residence, in the college or in lodgings approved by the college, of students not residing with their parents or guardians."[1]

88. But the enforcement of adequate residential accommodation was in practice impossible. The resources of the colleges did not permit of it. It was not until the State found large funds for the erection of hostels that any material improvement could be brought about; and even then the difficulty of acquiring land in Calcutta, its high cost, and the constantly increasing stream of students drawn in from the mufassal, made any adequate solution of the problem impossible. Still, the problem had been raised, and was being tackled. It can only be solved in the end by some device which will enable at any rate the younger students to obtain the training they need near their homes, or in places where residence can be provided at a reasonable cost.

89. The conditions of student life, and the character of the training afforded by the colleges, were thus very materially improved as a result of the Act of 1904 and of the work which it set on foot; and we desire cordially to recognise the reality and value of these achievements. Nevertheless there remained much need for further improvement; and the system outlined by the Commission and in the Act suggested no solution for some of the difficulties. No means had been discovered for ensuring to the teachers adequate salaries and a reasonable security of tenure, without which it is impossible to expect work of high quality. Above all, in spite of the closer supervision of the colleges by the University, the colleges were still left, under the revised as under the unrevised system of affiliation, organised as entirely distinct units, each responsible for the whole of the teaching received by its students; each, therefore claiming to be, in practice, so far as teaching was concerned, a university *in petto*. This was the case even in Calcutta, where many colleges were clustered closely together. Though the regulations permitted a student to take a course in another college in a subject in which his own college was not affiliated, no means of facilitating such interchange were devised; and it was not even suggested as desirable that the colleges should supplement one another's work in those subjects in which they were affiliated, and thus avoid waste and increase their efficiency. Nor was it suggested

[1] Clause 2 (c).

that the University ought to supplement the resources of the colleges for the training of the undergraduate. In spite of the proclamation of the principle that the University must become a teaching corporation, it was still held that it ought not to meddle in the teaching of undergraduate students; so strong were the traditions of the affiliating system.

90. Hence, though the transformation of the universities into teaching universities was stated to be one of the principal aims of the new system, this change did not affect the undergraduates. Clause 3 of the Act, indeed, described the University as being incorporated for the purpose (among others) of "making provision for the instruction of students," a phrase which might seem to include undergraduates. But the Act was interpreted in the light of the recommendations of the Commission, whose view was that "inasmuch as the better colleges already make adequate provision for the instruction leading up to the degrees of B.A. and B.Sc. it does not appear that the intervention of the University at this stage would be attended by good results."[1] The provision made by even the best of the colleges was not as good as that of most universities in the West. But however 'adequate' their provision might be, according to Indian standards, it is not easy to understand why their ablest students should be denied the opportunity of hearing university professors, or why those professors should be denied the opportunity of teaching them. Moreover, if it was only in the better colleges that the provision was even 'adequate,' it is hard to see why the students in the other colleges should not be afforded some means of making good their inadequacy. A possible reason for this conclusion which has been adduced by others, though not by the Commissioners, was that the students in the mufassal colleges could not take advantage of these opportunities if they were offered; in other words, the weakness of the mufassal was to be regarded as a ground for debarring Calcutta from making full use of its resources.

91. It was only in the sphere of post-graduate or advanced studies, then, that the provision of instruction by the University was contemplated. "We suggest," said the Commission, "that the universities may justify their existence as teaching bodies

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[1] Report, page 6.

by making further provision for advanced courses of study." For this purpose alone professorships, readerships and lecturerships were to be established, but the teachers thus appointed, however distinguished, were to be debarred from exercising any direct influence upon the mass of students in the most critical period of their training, or from picking out and giving guidance to young men of special promise. The fallacy and danger of drawing a sharp line of division between undergraduate and higher teaching has been often demonstrated. Yet this line of division was definitely drawn, for no apparent reason, unless it were the fear that the jealousy of the colleges might be aroused. But the jealousy of the colleges was surely less likely to be awakened by an offer of relief and help in their own work than by a proclamation that their work was of an inferior character, such as was implied in these proposals. Thus the principle that the University ought to be a teaching body was adopted only in a timid and deprecating way, and in a form which drew an unfortunate distinction between the University and its colleges. No attempt was made to achieve, what has been partly attained as a result of the London University Act of 1898, a sort of synthesis of university and college, wherein each should help and supplement the other.

92. The remarkable expansion of post-graduate teaching under the direct auspices of the University which has been achieved as a result of the new principle laid down in 1904, and by the help of large grants from the State, and private benefactions on a scale hitherto unexampled in Bengal, will be described elsewhere.[1] It showed that much could be done by the University to concentrate and consolidate the teaching resources of Calcutta. It showed that these resources were greater than had been supposed. It set, in some respects, new standards of method in university teaching which might be expected to exercise their influence in course of time upon the work of the colleges. Taken in conjunction with the concurrent reorganisation of the colleges rendered necessary by the Act, and with the attempt to deal with the problem of students' residence rendered possible by large government grants, it represents an expenditure of labour and thought so great, and a skill in organisation so considerable, as to inspire solid hopes for the future.

[1] Chapter XV.

93. But it cannot be denied that the whole process of reconstruction begun in 1904 was in several respects open to criticism. The creation of a large university staff, to which it ultimately led, inevitably had the effect of drawing many of the best teachers from the colleges; and as the colleges were still left wholly responsible for the training of undergraduates, this meant that the improvements effected by the new regulations were to some extent discounted. The artificial line of division between the 'higher' work undertaken by the University and the 'lower' work left to the colleges, which had been suggested by the Commission of 1902, could not but be unhappy in its results: no work can be 'higher' or more exacting than the training of the ablest youth of a whole nation in the methods of study and independent thought during the critical years of their adolescence. An effective synthesis between college and university was still undiscovered when the reforms of 1904 had been worked out to their conclusion.

94. In truth, the foundations of a sound university organisation had not yet been laid. The problems of high school training and organisation were unresolved. The critical period of training when the young student is being emancipated from the rigid curriculum of a 'general' school education, and has to begin to choose among divergent paths, had not been carefully enough considered; in most countries this period belongs to the upper end of the school course, and is still treated by school methods; in India, though many recognised that it was essentially school work, it was included in the university curriculum, and the Commission of 1902 had confirmed and strengthened this mode of treating it by banning the second-grade college, which might have been made into a useful compromise between school and college. The problem of students' residence had been realised, but found to be baffling; there had been little serious consideration of the question whether it was really necessary that boys should be drawn into big centres like Calcutta at a very early age, and whether the problem might not find some solution in devices for providing them with the earlier part of their training nearer home. Large amounts of public money had been expended, but mainly on the highest branches, not on the strengthening of the foundations.

95. It is a surprising fact that in spite of the increased strictness of the requirements for affiliation only one of the colleges

existing in 1902 was disaffiliated for non-compliance; and in 1907 two new colleges (the Wesleyan Mission College, Bankura, and the Hindu Academy, Daulatpur) were founded, while the college at Mymensingh, disaffiliated in 1908, was promptly reorganised by a local committee and reaffiliated. The main reason for this was that the number of aspirants after a university education was still increasing more rapidly than ever, not checked, but rather encouraged, by the provisions of 1904; and the colleges found that an increasing fee-revenue enabled them to meet the new demands. By 1917 the number of pupils in high schools, which in 1902 had been 191,648 for Bengal, Bihar and Orissa, had risen to 218,070 for Bengal alone; and the number of candidates for the matriculation examination had reached 16,088. The rate of increase since 1902 had thus been greater than the rate of increase in any other period.

96. The problem of controlling so large a mass of students, and of providing them with the kind of training they needed, was as difficult as ever, in spite of the improvements made since 1904. Even the problem of organising the examination of candidates in such vast numbers was becoming extremely difficult. And it was evident that the time had come for exploring the problem once more, and for considering whether changes even more fundamental than those suggested in 1902 had not become necessary. Since the report of 1902 the growth of the University has been such that on that ground alone reorganisation must have become necessary. Such reorganisation, in our view, should be something more than a mere readjustment or enlargement of administrative machinery. To be effective and fruitful it must be based on a fresh examination, as searching as possible, of the whole system of education of which the University forms part.

CHAPTER XXX.

The Need for a New Departure.

I.

1. We have now completed our review of the present state of higher education in Bengal and of the social conditions which affect its welfare. In the preceding chapters, we have sketched in outline the development of the western system of education from its beginnings in this Presidency a little more than one hundred years ago; the swiftly extending influence of the new ideas which it conveyed; their disintegrating impact upon many ancient traditions and customary ways of life; the stimulus which those new ideas have given, the tension which they have caused; the political and economic situation, in some respects full of encouragement, in others of menace, to which they have led. We have seen what part has been taken by Government, what by private effort, in the furtherance of this educational revolution; the temperament, the aptitudes and the needs of the young people who are affected by it; the growing pressure of the demand for the new opportunities which it offers—a demand which, first springing from the Hindu educated classes, has in recent years proceeded with no less intensity from the Musalmans and is now beginning to show itself even among the more backward classes of the community. We have described, as the most powerful single factor in this momentous change, the rise of the University of Calcutta from its foundation in 1857; the part which it has borne in the diffusion of western culture, and recently in the encouragement of oriental learning; its still slender connexion with the educational system of the domiciled community; the activities in which it and its affiliated colleges are now engaged and the defects inherent in the method of instruction usually employed; the relations of the University to secondary education both for boys and girls; the problems which confront it in providing higher education for women; the faulty conditions of its student life, especially in Calcutta; its system of examinations and their overshadowing importance; its provision of professional training for the lawyer, the medical man and the

engineer ; its plans for providing courses of instruction in agriculture, technology and commerce, and the bearing of those plans upon what has already been attempted in these branches of education. We have also described the constitution of the University and its administrative organisation ; its connexions with the Governments of India and Bengal ; the efforts which it has made in recent years to avail itself of the services of scholars coming from other parts of India and from Europe ; its relations with other sister universities in India and overseas.

2. But our attention has not been confined to the University of Calcutta. Bengal having been promised a second university, we have borne in mind the effect which the establishment of the University of Dacca must have upon the existing conditions of higher education. And, though we have deferred our discussion of the plans proposed for the new University to the second part of our report, we have kept in view the influence exerted upon educational thought in the Presidency by the Dacca University Committee's report published in 1912 and by new developments of university work in other parts of India, especially at Benares, in Bihar and Orissa, and in Mysore.

3. Furthermore—to complete this survey of the contents of the preceding chapters—we have given an account of the present situation of the traditional systems of oriental studies in Bengal and have endeavoured to find new points of contact between them and the University. We have also reviewed and discussed the present practice as regards the medium of instruction and examination ; and have mapped out the main currents of opinion as to the respective claims of the mother tongue and of English to predominance in the successive stages of secondary and higher education under existing conditions in Bengal.

4. The first part of our report is based upon what we ourselves have seen in the different parts of the Presidency, upon the oral and statistical evidence which we have received, and upon the written replies given in answer to our *questionnaire*.[1] For these replies we are indebted to more than four hundred correspondents, most of whom write with intimate knowledge of the social conditions prevailing in the Presidency and of the way in which its educational system actually works. What they have written dis-

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[1] See Chapter I.

closes the service which the schools and colleges have rendered to the country, the new opportunities now opening before education in Bengal, the grave defects which impede its progress, and the dangers which threaten its future welfare. We desire to express our obligation to our witnesses and correspondents, and especially to those who have furnished us with a written expression of their views. In the careful study which we have given to these documents, we have been impressed by the individuality and personal reflection which distinguish a large proportion of them, and by the candour with which the writers, while deeply convinced of benefits which education has brought to Bengal and of the importance of extending its influence, criticise its present shortcomings and defects. We hope that what our correspondents have written may prove to be the beginning of a new movement of educational opinion in the Presidency. Their replies record the thought and feeling of the educated classes in the community upon a question of supreme importance at a turning point in the history of India and of the Empire.

II.

5. The most striking feature of the situation is the eager demand for secondary and college education, in which English is the medium of instruction. Bengal has always shown a strong predisposition towards western learning. The volume and intensity of the present demand are however beyond precedent. The number of students enrolled in the 'arts' colleges in Bengal increased from 10,980 in 1912 to 18,478 in 1917. This is an increase of 68 *per cent*. Within the same short time, the number of pupils in the English secondary schools increased by more than 40 *per cent*. Nearly 400,000 students were receiving English secondary and college education in 1917 as compared with 278,000 in 1912. There is no parallel to these numbers in any other part of India.

6. It is clear that a powerful movement finds expression in this demand for secondary and college education. Four causes have produced it. The first is the economic pressure which is straitening, in some cases to the point of penury, the already narrow means of many families belonging to the respectable classes in Bengal. Prices are rising. A higher standard of personal expenditure becomes almost inevitable, especially in Calcutta and, through the influence of life in Calcutta, elsewhere. Thus a considerable sec-

tion of the community, and one which by reason of its intelligence is influential out of proportion to its numbers, is impelled by increasing claims upon the family income to seek for all its sons the education which alone gives access to the callings regarded as suitable for their choice. The sacrifices made by these families and by the boys themselves in order to get education are severe and silently borne. Higher education in Bengal is being bought at the price of self-denial and, in many cases, of actual hunger. To the members of the respectable classes English high schools are a social necessity. They are desperately anxious that their boys should be able to get at the lowest possible cost the kind of education which will help them to livelihood in a career consonant with their sense of dignity and with what are felt to be the claims of their social position.

7. The second cause which has led to the increased demand for secondary and higher education is the awakening of new ambitions in ranks of society which formerly lay outside its range. The social recognition to which a graduate is entitled is naturally prized by many whose rising prosperity enables them to look higher than their earlier circumstances allowed. Agriculturists, in thinking of their sons' future, look beyond the horizon of village life. The difficulty of finding remunerative employment on the land for all the young men of a large family makes their fathers wish to put them into other callings, access to which is through the English secondary schools. This stream of new comers from the country districts swells the numbers in the existing high schools, floods some of them beyond their capacity and creates a demand for new accommodation. Nor does the flood seem to have reached its height. Other tributary streams increase the demand for schools. From classes in the Hindu community which are still illiterate, clever boys are making their way upwards into higher education. There are few signs at present of any desire to break loose from the too bookish curriculum. There is little disposition to adventure upon new and unfamiliar careers. But though not yet on the American scale, the movement towards the high schools in Bengal shows something of the American faith in the social value of educational opportunity.

8. The third cause which has stimulated the desire for secondary education in Bengal is hardly less powerful. It is the feeling, however inarticulate and undefined, that economic and social

changes are near at hand. There is an instinct that India will become a more industrial country, that new kinds of employment will be opening, and that it will be to a young man's advantage to have had a good education. In what way or to what extent these anticipations may be realised, no one is able to predict; but the general impression that such changes are possible has in itself an effect. In other countries such a stir of new educational ambitions has always been a sign that the old order of social ideas is shaken, that fresh and unaccustomed forces are coming into play, and that some great re-adjustment of economic conditions is not remote. We cannot point to any educational movement upon the scale of that now visible in Bengal which has not been the overture to a period of social tension and of far-reaching change.

9. A fourth cause has furthered the growth of secondary and college education during recent years. Thoughtful Indian opinion frets under the stigma of illiteracy which, in spite of the high attainments of a relatively small minority, the country has still to bear. Every advance which India makes towards a place of direct influence in the affairs of the Empire throws into sharper relief the ignorance under which the masses of her people labour. The educated classes are sensitive to this blot upon the good name of their country and feel that it lowers the prestige of India in the eyes of the world. They approve therefore of any extension of education, believing that an increase in the numbers of any kind of school will directly or indirectly lessen the mass of ignorance which is the heaviest drag upon the progress of India. On a narrow view of their own interests the educated classes might demur to making higher education accessible to scores of thousands of new aspirants to careers which are limited in number and already overcrowded. It is well understood that one result of the growth of new high schools will be to intensify the competition for a restricted number of posts and therefore to prevent salaries from rising. But any disposition to limit educational opportunities on this account is overborne by a conviction that the country needs more education, and by a faith that the liberal encouragement of new schools will in the long run prove the wisest policy. Such encouragement is believed to be in the interests even of those who already enjoy access to the kind of education which, if it were limited to them, would have an enhanced pecuniary value. Much of the zeal for

secondary education springs from non-self-regarding motives and works against what might appear to be self-interest. It is this belief in education for its own sake, a belief which—though often vague and undiscriminating, is ardent and sincere—that gives its chief significance to the movement now spreading in Bengal.

10. But the forces which are driving forward this new movement of opinion will not by themselves raise the level of excellence in education. On the contrary, unless they be supported by financial assistance and directed wisely to well-chosen ends, they will bring about a collapse in an old system which was designed for more limited numbers and for the needs of earlier days. The existing mechanism is overstrained by the unexpected pressure of new demands. Year by year it is less able to cope with them. At present, nearly every one who goes to school or college gets something short of what he really needs. In many cases the sons of the older educated families are receiving an education of a quality inferior (at any rate inferior in proportion to present necessities) to that which their fathers enjoyed. The new-comers are not getting the kind of education which they require but a diluted share of something designed for other conditions and defective in its adjustment to existing needs.

11. If rightly directed, however, the forces which are at work in the new movement are powerful enough to transform education in Bengal and to make every school and college better than it has ever been. But the energy which the new movement supplies needs to be concentrated at the right points if it is to lift the heavy mass of the present system to a higher level. It can only be so concentrated by a representative (we do not mean by this a directly elected) central authority commanding the confidence and support of public opinion. The energy which has to be collected and applied shows itself for the most part in private aspirations and in family aims. Family opinion therefore and individual minds will have to be convinced that the new plan is better than the old plan. Nothing can be done unless the new arrangement is plainly better than what now exists and is more likely to satisfy personal needs. It must give more, and give it more profusely. At the same time, what it gives must be of far better quality and more closely adapted to the different grades of capacity found among those who receive it. It must be liberal in aim, and yet must serve practical purposes. It must be so widespread that no one is shut out, and

yet be selective in the sense of giving to each individual the training which will meet his needs. It must have public authority behind it, and yet must allow scope for private initiative and have regard to diversity of local needs. Yet, even if all this can be done, many will oppose change, through not realising the gravity of the situation or through being wedded to the established order of things. To overcome this inertia a concentration of the available energy will be required. A wave of public opinion, supporting the action of a new representative central authority, can alone raise the present system to a new level of usefulness and open out new educational opportunities.

12. We sympathise very strongly with the view that one of the greatest needs of India is more education, widely spread throughout the community. At the base of the system should be well-staffed primary schools, bringing a new stimulus to the mass of the population by means of a training liberal in spirit and yet adapted to the conditions under which the vast majority of the pupils must afterwards seek a livelihood. In order that every child of special promise may enjoy further opportunity, the primary schools should be linked up to secondary education in its various grades. The teaching in the secondary schools should be carefully adapted to the requirements of different types of ability; emphasising the value of an all-round development of physique, mind and character and not forgetful of the practical needs of modern life. The system should be crowned by universities, professional schools and technological institutions, popular in their sympathies, exacting in their standards, many-sided in their courses of study, staffed by able teachers, and accessible to all who may have shown themselves competent to profit by advantages necessarily costly to the State. We share the opinion that, just as the main economic purpose of the co-operative movement is to democratise credit, a chief aim of the educational institutions of India should be to democratise knowledge.[1] But in order to meet the needs of the whole people, education must be organised with infinite care; it must be developed by patient experiment, by public and private expenditure on a generous scale, and with rigorous regard for excellence in quality; it must be adjusted and continually

[1] See article by Mr. Lalubhai Samaldas 'on Problems of Reconstruction' in *The Social Service Quarterly* (Bombay), July 1918.

readjusted to the manifold needs of different individuals, and to the needs of the community for the service of which the individual is trained. Thirty years ago, when the Commissioners on Technical Instruction went from England to various parts of Europe in order to learn what was being done to strengthen the economic position of different countries by means of education, a Swiss gentleman said to them: "We know that the mass of our people must be poor; we are determined that they shall not also be ignorant." By waging war against ignorance, the Swiss have alleviated poverty as well. But they have succeeded in doing so only by thinking out at each stage what education should aim at, what kind of teaching it should provide, and how it may combine training for livelihood with training for life. And the fundamental need which the Swiss have set themselves to meet is the need for teachers trained for this profession and inspired by public and patriotic aims.

13. But, as things are, the most serious weakness in the educational system of Bengal is the dearth of teachers competent to give the training which, in order to meet the needs of the community, the schools and colleges should provide. As compared with many other countries, Bengal is very weakly furnished with the *personnel* indispensable to educational success. Until this defect is remedied the hope of achieving a great advance must be foiled. There are two reasons for the weakness. First, social conditions deprive Bengal, at present almost entirely, of the services of women teachers, who, in other lands touched by like aspirations, form the great majority of the teaching staffs in primary education and are employed in rapidly growing numbers in secondary schools. Secondly, so poor are the salaries and prospects offered to teachers and so doubtful is the status of the teaching profession as a whole that the calling fails to attract the necessary number of recruits possessing the ability and training which are required for the work of public education. In Bengal the widespread faith in education is in violent contrast to the disregard of the instrument by which alone education can achieve its aims.

14. At present all the young men who have been trained at high schools and colleges seem to find posts of one kind or another. It is true that increasing competition keeps salaries low. Relatively to the higher cost of living, incomes actually decline. It is often the practice to wait a long time for a settled appointment of the

kind which the applicant thinks is worth his while to accept. But, apart from congestion in the legal profession, we have found few signs of actual unemployment among the young men of the educated classes. No prominence is given to unemployment in the answers to our *questionnaire*. The matter was not mentioned to us in oral evidence during our visits to different parts of Bengal. The output of higher education is still absorbed by the Government service, by the professions and by the commercial firms, though the rates of payment are often meagre and there is a general complaint that the economic position of the educated classes as a whole is increasingly painful and discouraging. Nevertheless we cannot but fear that, unless there are great developments of industry and commerce in Bengal, and unless the educational system is adapted to the new requirements, the supply of young men trained by the high schools and colleges will be found at no distant time to have overshot the demand. This fear is shared by many observers, Indian and European alike. In spite of this anxiety, however, there is a strong feeling that, so far from being kept stationary or from being curtailed, opportunities of secondary and higher education should be more widely diffused.

15. Thus, year by year the high schools and colleges send out into the world young men in numbers so great and so rapidly growing that the prospects in the callings which they choose are already impaired and are likely to become seriously worse. At the same time a great calling, indispensable to the community and not in itself derogatory to the dignity of the most highly educated men, is in urgent need of the services which well-educated men alone can render. The belief that education can give new life to Bengal grows apace. With the help of a large body of able and vigorous teachers it could meet all the hopes which are reposed in it. But these teachers are not yet forthcoming. The prospects afforded by the teaching profession are insufficiently attractive. Yet there is a multitude of promising young men who would be glad to find a calling adequately remunerated and capable of satisfying the ambitions of those of them who desire to serve their country and their generation. Is it possible to bring these two needs together, and thus at one and the same time to furnish Bengal with the instrument which will realise its educational hopes and to open out for young and well-educated men attractive opportunities in a profes-

sion from which they now turn aside? We conceive that this might be done, but only by drastic improvements in the present system.

III.

16. Such is the general situation disclosed in the earlier chapters of this report. We shall now recapitulate the most conspicuous defects in the existing educational system before proceeding to make detailed recommendations for its reform.

17. In the first place, the colleges have to deal with large numbers of students insufficiently prepared for the methods and standards of university work. A considerable proportion of the candidates who pass the matriculation and enter college are not ready for university teaching. In order to take advantage of what the University can offer, they should have a more thorough command of English, should possess a wider range of general knowledge, and should be maturer in character and judgment. The intermediate classes do not rightly belong to the university stage. They are preparatory to it, and in a more fully organised system would find their place in the sphere of higher secondary education.

18. The remedy will be found in a thorough-going reform of secondary and higher education in Bengal. Our evidence shows that this is the most urgent need. The schools should have a wider curriculum, a larger proportion of trained teachers and improved equipment. Many parents who are making bitter sacrifices in order to give a high school education to their sons get a very poor return for their self-denial. The schools specialise in preparing boys for the university matriculation. It is easy to excuse them when we remember what public opinion insists upon their doing, and how careful most of them have to be in keeping public opinion their friend. But the college authorities find no reason to be satisfied with the average result. On the contrary they say that the intake from the schools is of such poor quality that little can be made of it without a long preliminary drill. It is not that the material is bad but that it has been mishandled in the schools. This in itself would be serious enough, but the mischief does not stop here. The high school training which fails to fit most of the boys for the University, fails also in fitting them for anything else. Preoccupied with the matriculation, the schools neglect the rest of their business. The teachers who are giving their lives to high school work have a strong claim

upon public consideration and support. A comprehensive reform of secondary education would make their work more fruitful, would bring to their assistance competent and well-trained colleagues, would strengthen the University and would add to the vigour and practical capacity available for every kind of public and private service in Bengal.

19. A better secondary education would give to the workshops and factories of the future the responsible leaders which they will require. An experienced Indian witness tells us that one of the things which would most relieve the situation is a breakdown of the prejudice against working with the hands. Such a change would be promoted by a good modern course of secondary education in which the training of the hand and the study of science have an important place without detriment to the training given through language, literature and history. Books would mean more to high school boys in Bengal if the high schools were less bookish. Not only industry and commerce but the professions would be better served by schools which had a broader outlook and gave a more varied preparation for life.

20. In the second place, the University and its colleges fail under present conditions to give the abler students the educational opportunities which they deserve. The first question which we put to our correspondents asked whether the existing system of university education affords to young Indians of ability full opportunity of obtaining the highest training. An overwhelming majority replied in the negative.[1] Too little is done in the way of providing the special teaching and tutorial advice which a student of promise needs from the beginning of his course. In the undergraduate course in arts (laboratory instruction gives more opportunities for individual guidance in science) there is only one type of education for all students alike. Honours men and pass men attend the same lectures. This arrangement does not discriminate between the needs of different qualities of mind. The more promising students are kept back by the less intelligent. In the undergraduate classes too little is done for the boy of parts.

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[1] The question was answered by 284 correspondents, five out of every six being Indians. The number of replies unfavourable to the present system of university education, on the ground of its failure to meet the needs of students of ability, is 243. The other answers show for the most part only a qualified acquiescence in the existing arrangements, many expressing a desire that they should be greatly improved.

21. The remedy for this defect will be found in a remodelling of the university regulations which should institute honours courses distinct from those which lead up to a pass degree. But in order that they may provide the teaching and tutorial guidance which the abler students require, the colleges should be helped to increase and strengthen their staffs and in Calcutta there should be closer co-operation between the colleges and the University. The teachers should have more responsibility in planning the courses of study, and the University should have greater freedom in framing and changing its regulations.

22. In the third place, the physical side of education receives too little attention both in colleges and schools. The health of the students is unduly neglected. Facilities for games and physical training are inadequate. Great numbers of the college students and of school boys live in unsuitable houses where the conditions are very unfavourable to health. Secondary and higher education in Bengal would be a much greater boon to the community if improvements were made in those conditions of student life.

23. If the attention of the University and school authorities is directed systematically to the removal of these defects in physical education, much may be done at comparatively small expense. But the provision of well-arranged hostels for school boys and college students will entail great expenditure, especially in Calcutta, and must be undertaken upon a carefully considered plan by Government in co-operation with the universities and with the governing bodies of colleges and schools.

24. Obsession by the idea of passing examinations is another glaring defect in the existing system of university education. A degree has such value as a qualification for appointment to a post in Government service that, under the pressure of their poverty, the great majority of the students forget the wider purposes of university training and concentrate their thoughts upon the certificates which it confers. No one who tries to put himself into the position of a struggling Indian student, and to realise what he himself would probably do under like conditions, can wonder at the dominating place which examinations take in the student's outlook or at the anxiety with which he looks forward to them. They are the touchstone of the young man's career. His prospects in life depend on them. And he knows what sacrifices his parents have

made in order that he may win a degree. But, though the excessive importance which is now attached to the results of the university examinations is natural enough, the effects of it upon the spirit and tone of university life and studies are lamentable. University education in Bengal (and similar complaints come from other parts of India) is largely vitiated by this narrowness of aim.

25. Of course, from the time of its first introduction into Bengal, western education has owed part of its attraction to the fact that it qualifies those who receive it for posts in which a knowledge of English and of western ways of thought is indispensable. Similarly in every other country one of the reasons which brings students to the university is the desire to obtain a qualification which will help them in their careers. But what is noticeable in India is the disproportionate degree in which this motive influences the majority of students throughout their university course. It seems to overshadow all other considerations, and to close the mind to many of the wider interests of university life. In former days, when western ideas were fresh to India, students felt more enthusiasm on being brought into contact with European thought and literature in the course of their work for a university degree. The reading of English books, the words of European teachers, kindled their minds and gave them a new outlook on life. Thus the most important side of their university training was that in which self-interest was forgotten, although the students were fully aware of the money value of a western education as helping them to gain a post or to win success in a profession. The course of study had in itself a cultivating power because those who followed it were eager to absorb the ideas which it conveyed. This is still true in many cases. There are great numbers of students in Bengal, as elsewhere in India, to whom European literature and science bring the revelation of a new world of thought and criticism. But there is no longer the same wonder of novelty. Through books and news papers, and often through talk heard at home, they have already become familiar with many of the ideas which, in the earlier days of western education in India, were first encountered in the college course. Hence the university curriculum, though it has been widened and improved, stirs the imagination of the modern student much less powerfully than it stirred the imagination of his predecessors in the earlier days of the new movement. There is need for a readjustment both of the subject-matter and of the methods of

university teaching to the new situation which has gradually arisen. A kind of teaching and a range of studies which served a very useful purpose in former days have become in great measure sterilised by routine. What at one time was purposeful and efficacious, because the students themselves were eager for it for its own sake and believed in its efficacy, has through lapse of time and through familiarity lost much of its interest and power of inspiration.

26. This is a point of capital importance to the wider implications of which many of our witnesses refer. We select therefore three passages from the evidence for quotation here. Rai Lalitmohan Chatterjee Bahadur writes[1] :—

"The education imparted does not go deep enough for shaping mind and character. The student comes up from the school with a vicious habit ingrained in him—that of depending chiefly on his memory.......The student depends even more largely on bazar notes and keys because he has never acquired the power of accurate expression or of thinking for himself. The teaching that he receives is mainly, if not exclusively, directed to helping him to pass his examination. He brings with him so poor a basis of sound general education that higher teaching is more or less wasted on him. Then again, there is very little in his studies in the college to awaken living interest or touch his deepest instincts—and so call forth mental effort. For example, the political and social evolution in India is the most vital concern of young India; modern university studies have little bearing on that."

Mr. J. C. Coyajee of Presidency College urges[2] that—

"the unpractical......ideals of our education have caused a great deal of harm.........Literary studies form the main body of the system, while tags and fringes of scientific, technical and commercial education have been attached to it by an after-thought as it were. The injury caused by this state of things is grave. It is clear even to the students that such education is of an unpractical nature, and leads to nowhere. The enthusiasm of the student is damped by seeing the comparative fruitlessness of the work at which he is toiling.........Our educational system should have as its distinguishing feature the ideal of practicability.........Our education should be many-sided so as to cater to the variety of the talents and needs of the alumni. A great change is at present coming over the educational system and ideals in England, and the present opportunity should be taken to transplant some of these new ideas here."

The need for a great change in the temper and outlook of university studies is admirably stated by Mr. Justice Abdur Rahim who writes[3] :—

"The present system has undoubtedly done valuable service in the past, but it is clear that for some time it has been out of touch with the requirements

[1] Question 1.

[2] General Memoranda, page 416.

[3] *Ibid.*, pages 434-435.

of modern life. Obviously, a system of university education, which results in the training that is given being dissociated from, or found inadequate to meet, the needs of life understood in a comprehensive sense, has to be discarded or so moulded as to enable it to serve its proper purpose. The scope of the Indian universities is extremely narrow, and it can hardly even be said that they pursue any conscious definite aim. An up-to-date university should press into its service all that there is in literatures, sciences and arts and in life calculated to develope the student's power of thought and action, his ability to co-operate and to organise, so that he may add to the intellectual, moral and material resources of his country and the world, and be a true leader of his people. University education can have little value if it does not succeed in liberating the student's mind and moral nature from the narrow traditions of the past and the harmful prejudices of his surroundings, and in fully developing in him the sense of social justice and responsibility. or if it does not instil in him the courage to live a full life and to enable those around him to live such a life. The aim of an Indian university should be to create an academic atmosphere in harmony with the above ideal.

For the Indian student 'the dim shades of the cloisters' are not so much needed as the inspiration of the workshop and the factory; above all he should be made to realise, with the energy of faith, the teaching of science and experience that the miseries, sordidness and inefficiency that surround him are not inevitable but are mainly the product of social misarrangements capable of being set right.......The fact must also be frankly recognised that there will be no sense of reality about any scheme of university education so long as the opportunities of civic life are not in harmony with it. We must proceed in the hope that such harmony will be established and that the labour of this Commission will be co-ordinated with the contemplated political and industrial reorganisation The conditions of the times make it clear that it will be for the good not only of humanity but the British Empire itself that the talent and moral energy of the people of India should be fully developed and utilised in the future ordering of human life along more stable, comprehensive and harmonious lines."

27. Thus by imperceptible degrees and from causes which have lain beyond the control of the universities, the older course of studies has lost much of its savour. And when we remember the extraordinarily rapid increase in the number of college students—an increase which has resulted in its being the lot of the majority to be herded in large classes, to be treated as a crowd and to be passed on from one stage of instruction to the next almost like materials through a machine—and that an ever increasing proportion of the students come from poverty-stricken homes and many of them from families which have no long tradition of higher education, we can hardly wonder at the exaggerated importance which it has become the custom to attach to success in passing examinations as giving value for the money spent in school and college fees. Lamentable as is the present state of affairs, there are many reasons

which forbid a harsh judgment upon it. One of our correspondents[1] refers in the following passage to the difficulties with which many of the students have to contend:—

"The most serious handicap of the Indian student is the intellectual atmosphere which he has to breathe. I need not say that no disparagement of the Indian intellect is implied in this statement. What I refer to is simply the outcome of well recognised sociological conditions peculiar to India and more especially to India in the mufassal, at this stage of her progress: (i) There is the great mass of illiteracy all round. I am not speaking here of illiteracy in the student's own immediate circle of relations and friends, but of the illiteracy among those whom personally he may not know at all. It would be interesting to trace out some of the subtle pervasive ways in which this great mass of illiteracy is operative as an influence not only on the student (though he perhaps is most affected) but also to a greater or less extent upon all who have to live and work in India......The general effect is a sort of aridity or sterility which is not favourable to normal many-sided intellectual growth. (ii) There is the fact that even when literacy is present it is usually a one-sided affair, hardly as yet affecting women to any appreciable degree. (iii) Only too frequently is the student an isolated unit in his family, in his social circle or, it may be, even in his neighbourhood."

28. A chief purpose of the recommendations made in the following chapters is to suggest remedies for the narrowness of the student's outlook which is one of the most depressing features of the existing system of school and college training. We do not disguise from ourselves the difficulty and extreme complexity of the problem. It springs in part from the social and economic situation of the country. It is also due in great measure to poverty—to the poverty of individual students and to the fact that most of the educational institutions have insufficient funds at their command. But much of the evil is due to remediable defects in the organisation of the universities and to a bad tradition which may be transformed. And it is clear that the way in which the universities have been used for the purpose of recruiting the State services has had a demoralising effect and has induced among many of the students a spirit of routine, together with excessive anxiety about the results of examinations followed by embitterment and depression in the case of failure.

29. Conscious of the need for the better adjustment of university courses to the demands of industrial and commercial careers, a large number of our witnesses urge that the University should provide an increased number of courses of training in technology. This

[1] Mr. M. B. Cameron in answer to Question 2.

powerful body of opinion shows that the time is ripe for a great extension in the activities of the University and for the establishment of closer relations with the leaders of commerce and industry. But it is not less clear that, before these hopes can be fully realised, there must be great reforms in the secondary schools and in the intermediate courses. Bengal needs a modernised secondary and higher secondary education in which science is indispensable. A great change is required in the intermediate stage. But the reform of the intermediate courses is bound up with the reorganisation and improvement of the secondary schools on the one hand, as well as with the reconstruction of the present university system on the other. Upon the evidence which we have received on this subject many of the recommendations made in the following chapters are based.

30. Even more fundamental is the need for a great reform in the methods of teaching both in schools and colleges. Upon this question the testimony of our witnesses is conclusive. The systematic training of those who intend to enter the teaching profession—a training which includes the study of the principles of education and thorough practice in the art of teaching a class—has changed the character of the educational system in many other countries. It is capable of rendering the same service to Bengal, provided that the prospects of the teaching profession are so improved as to attract a larger number of men of ability into this career. In the following chapters we make recommendations as to the part which Government, the University and public opinion may take in this reform.

31. For the work which awaits it in the advancement of learning and for the reform of its present methods of training, the University of Calcutta needs reconstruction and larger funds. The Senate has to serve as a representative assembly and at the same time to decide matters of detail appropriate to a small executive. It is neither large enough to reflect all the shades of relevant experience and opinion, nor small enough for the discussion of intricate affairs. The Syndicate is at once insufficiently representative, and too accidental in its composition to decide, with adequate knowledge of what they involve, all the problems which the insufficiently differentiated constitution of the University assigns to its care. We shall therefore propose the establishment of a teaching university in

Calcutta, based upon a new and closer association between a reconstituted university and reconstituted colleges. At Dacca, where the number of students will be smaller and the conditions of the problem simpler, we shall propose the establishment of a teaching university wherein the teaching will be directly and entirely under the control of the university authorities; and where, we hope, the close association of Hindu, Muslim and European teachers will in a specially high degree afford opportunities for collaboration in thought and scholarship among the representatives of the three cultures from the blending of which a new intellectual movement may arise in India. In the case of both universities we shall recommend that, in respect of the great bulk of ordinary academic business connected with teaching and courses of study, the direction of policy should be chiefly in the hands of the teaching body. We shall propose that such of the mufassal colleges as may provide courses for a degree should for the present remain in association with the University of Calcutta and be under its aegis and protection; but that they should do their work under new conditions which, while not hampering the growth of the teaching system in Calcutta or imperilling the standard of the degree, will give to all of them a due measure of academic freedom, and will afford to those which show potentiality of growth the opportunity of rising stage by stage to academic independence.

IV.

32. We are aware how much excellent work is being done not only by individuals but by institutions under the very unfavourable conditions which now prevail. We have observed in several directions the beginnings of a new life in the University and in some of the colleges, not least in the labours of the university professoriate and of many devoted college teachers, in the formation of councils for post-graduate study, in the improvement of scientific laboratories, in the rapid (though still inadequate) development of hostel life, in the growth of a sense of the obligation to social service, in the effective organisation of the university battalion, and in the increasing interest which is taken in questions of educational reform.

In circumstances of extraordinary difficulty, the University has achieved a great work. All over Bengal we found a grateful appreciation of its past service and a strong desire that it may be

so developed as to meet the rapidly changing and extending needs of the country. But we cannot conceal our apprehensions at the consequences which are likely to follow from a continuance of the conditions (statutory, administrative and financial) under which its work is now carried on. We believe that the evil effects of the present system are corroding the intelligence of young Bengal and that they will work increasing and irreparable mischief unless their causes are removed.

33. It is therefore our conviction that the reform of university and secondary education in the Presidency is a matter which does not safely admit of delay. India, with new political responsibilities, is coming into the fellowship of nations. Her education, from primary school to university, should be answerable to modern standards of what is best. Of late in Britain, in Western Europe, in Australia and in America there has been a widening of educational opportunity, an amendment of educational aims. A like change, made in a spirit which respects her own noblest traditions, is needed in India also. The ideals of a new age call insistently for a new purpose in education. India, for her own sake and for the sake of others, should bring her wisdom and experience to a task in which every nation is called to share.

34. In the eloquent and touching memorandum which he has submitted to us,[1] Mr. Ramendra Sunder Trivedi, Principal of Ripon College, draws a picture of education in ancient India and a contrast between its aims and those which have prevailed under the new influences coming from the West. He says that he is himself indebted for the most valued possession in his life to the benefit of western education received under the auspices of the University of Calcutta. He describes the University as 'a foreign plant belonging to a type which flourished on foreign soil.' But he holds that 'its importation was an urgent necessity of the time, suddenly created by the abrupt introduction of new conditions of life with a new order of political situation.' Those who introduced the new university system were constrained 'to plan out a machinery' but had not, in Mr. Trivedi's judgment, "the opportunity to think out whether it would organically blend with the life, spiritual and secular, of the people for whose benefit it was intended."

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[1] General Memoranda, pages 303-309, see also the memorandum by Sir John Woodroffe in the same volume, pages 309-311.

35. Nevertheless he contends that—

'the University has not failed as an institution and as a machinery. It has admirably served the purpose for which it was primarily intended. It has given the State a body of faithful and able servants . . . . What is more valuable still it has broadened the very base of life of an oriental people hitherto accustomed to move along the narrow lines and ways of their own, in the seclusion imposed upon them by their own history and geography. Western thought and western culture brought to us through the universities have widened our field of vision, have placed before us new duties, have created new aspirations, and to-day the land is astir with the promptings of a new life, struggling to participate in the eternal conflict of life in the world; striving to bring forth a type of Indian humanity which, broadly and securely based upon the foundations of its own special culture, will assert itself in the presence of the manhood of the world."

36. With this appreciation of the work which the University of Calcutta has accomplished and with this indication of what should be its future aims, we find ourselves in full accord. And we believe that the drastic changes which are proposed in the following chapters will enable those aims to be realised. We shall welcome those changes because they will give new life and freedom to the University as a place of learning and of education, and will allow its teachers to combine what was best in the ancient educational tradition of India with what is best in the educational aspirations of the West.

37. Mr. Trivedi, while eager to acknowledge the service rendered to India by western education, looks back wistfully at what has been lost by the inevitable decay of the older tradition:—

"Western education has given us much; we have been great gainers; but there has been a cost, a cost as regards culture, a cost as regards respect for self and reverence for others, a cost as regards the nobility and dignity of life."

He deplores the fact that, by too many of the present generation of students who seek western education, 'knowledge is valued because knowledge brings success in life—often success in a vulgar sense.' He regrets the change in the relation between teacher and pupil, the weakening of the personal tie by which they should be bound to one another. He feels constrained to say that the true end of university education, the advancement of learning, has 'receded to a distance and is half-forgotten in the striving for the maintenance of a suitable standard of test of fitness among the clamorous claimants for a degree.' But it would be inaccurate to ascribe these changes in temper and outlook to the introduction of western education as such, though they have unfortunately

accompanied it. Only a narrow and mistaken view of the work of the great schools and universities of the West could overlook their services to learning for its own sake; the intimacy of the relationship between many of those who teach in them and many of those who learn; and the disinterested purpose of what is of the highest and most permanent value in their work.

38. The truth is that what came into India with the advent of western education was a wave of varied influences, not a unified body of principles expressed in a single institution. The movement proceeded not from any single source in the West but from many sources. There were several currents in it. They conveyed, under a semblance of unity, different and in some respects conflicting views of life. Even when organised by the action of Government the influences which came from the West were not homogeneous. It was this fact which made them representative of the real life of Britain and other Western countries, and gave them variety of fertilising power. In no country in the West has education ever been wholly identified with any single point of view, or with any one body of doctrine, or even with any single code of principles. It has always been divided by inner conflicts or, at times of apparent tranquillity, by tacit divergence. This is the quality in it which has multiplied its points of contact with Indian thought. Each of the traits which Mr. Trivedi selects as being characteristic of education in ancient India (its identification with religious belief, the pursuit of knowledge for its own sake, the admission of the poor to learning, the personal tie between teacher and taught, the setting apart of a special class for the duty of teaching, freedom from detailed control by Government) has also been characteristic, at different times and in different degrees and forms, of one or more of the various traditions which have shown themselves indestructible in the complex fabric of education in the West. But modern educational thought in the West is affected by three fundamental assumptions, *viz.*, (1) that the whole nation, without exception, should have access to educational opportunity; (2) that education should be equally accessible to both sexes; and (3) that attendance at school should be compulsory for every one up to an appointed age-limit. The growing influence of these ideas upon Indian opinion is manifest, though the difficulty of their practical application in India is obvious.

39. In the middle of the nineteenth century what was written about educational aims in England was far from being fully representative of English practice. The ideas most loudly expressed in educational propaganda were individualistic. At their best, they were inspired by a belief that the free play of individualities would lead almost automatically to social justice and well-being. At their worst, they were coloured by a vulgar commercialism. English opinion was far from being unanimous in its acceptance of these ideas. There were no better critics of what was crude and one-sided in them than Englishmen like Dickens and Ruskin.

40. But the circumstances of the time gave a disproportionate degree of importance to the individualistic and utilitarian theories of education which were being vigorously stated by influential speakers and writers in England. It is not surprising therefore that to many Indians the utilitarian side of western education appeared to be its characteristic feature. Other reasons deepened this impression. The close connexion between a university degree and admission to employment under Government emphasised the money value of the new education. The usefulness of being able to speak English caused many Indians to think of western education as being mainly a valuable kind of technical instruction, and as very different in its aim from the education which he had been accustomed to associate with the idea of religious training. This impression was deepened by the fact that, for good reasons of neutrality, the Government confined the work of its own schools and colleges to secular subjects. Another novelty, the examination-system, accentuated the more self-regarding side of education and, owing to the special difficulties imposed upon Indian students by the inevitable use of English as the medium, focussed an undue amount of their attention upon a side of school and college work which in England usually held a more subordinate place. For these reasons there has been a good deal of misunderstanding in India about the true significance of Western ideals of education.

41. But the misunderstandings, though important, were superficial. The more penetrating influences of the new movement of ideas lay deep below the surface. They were communicated through the personality of individuals rather than by books alone. They were expressed in tones of mind and of judgment, not in clear-cut

generalisations. In their variety, in their dissimilarity of view, and even in their hesitations, they were the true representatives of the real forces which were at work in the education of the West. They showed that the affinities between it and some of the chief characteristics of the ancient Indian tradition were closer than appears at first sight. They, like that tradition, laid stress upon the value of the personality of the teacher; upon religious influences in education; upon the disinterested love of learning; upon the need for freedom in the teacher's work.

42. The last seventy years in Western Europe, and not least in England, have been a period of confused struggle between different educational ideals. There has been a long endeavour to adjust each branch of education to the authority of the State without doing violence to the many living traditions which are found in each grade of national education. But, for the time at any rate, the tone of educational thought which prevails in England is not, in the older sense of the word, individualistic. The reaction has come. And, though individuality is once again fighting for recognition as a necessary side of the truth, popular views of education are influenced by the writings of Ruskin rather than by the writings of Bain and Smiles.

43. Those who, like Mr. Trivedi, believe that the ancient educational tradition of India embodied many principles which should be followed to-day will find encouragement in the new tendencies of educational thought in England. The Workers' Educational Association insists upon the importance of the purely disinterested and non-utilitarian side of education, not least to those who have to earn their living by the labour of their hands. There is an even more widely diffused conviction that those who are competent to follow higher studies should not be excluded from them by poverty. It is the general desire to preserve varied initiative in education, while at the same time eliminating personal considerations of pecuniary profit from its supply. And perhaps the crucial problem in English, as in Indian, education is to discover a way of giving public subsidy to education without hampering the freedom of those teachers who are qualified for their work. We are encouraged to hope that the Universities of Calcutta and Dacca will stand for an ideal in education which is not less faithful to the best Indian traditions because it is in harmony with the new educational aspirations of the West.

44. Convinced that nothing short of a comprehensive reconstruction of the university system will meet the needs of the time, we shall propose in the following chapters what can only be called a new departure in secondary and higher education in Bengal. Educational reform on a bold and generous plan may save Bengal from the loss and danger which threaten a country when the training of its educated classes has got out of gear with the economic needs of the nation. Those economic needs call for a spirit of industrial enterprise, awake to the claims of the community and of its work-people as well as to opportunities of private gain. The industrial and commercial interests of Bengal will be best served by a generation of young men trained to vigorous initiative, equipped with liberal culture, scientific in temper of mind, generous in social purpose, and freed from shamefacedness about working with their hands. A new kind of education is needed to fit young Bengal for the new kinds of work which it is in the interest of themselves and of their country that they should be better prepared to undertake. And the way to what is wise and farseeing in the planning of primary education for India (the most inspiring and most perilous of tasks) lies through such changes in the life of the University and of the high schools as will deepen the sense of fellow-service and will train judgment to social ends.

CHAPTER LII.

SUMMARY OF RECOMMENDATIONS.

1. The recapitulation of our main recommendations, set out below, is intended for convenience. The precise phrases of the following clauses must not be regarded as authoritative in themselves, but must be interpreted in the light of the fuller statement embodied in the foregoing chapters, to which references are appended in the margin. Moreover, we desire it to be understood that the recommendations set out below do not constitute the whole of our recommendations, but embody chiefly those upon which we think that immediate or early action ought to be taken. Many recommendations and suggestions, intended for the guidance of the new governing bodies of the universities, or of the proposed new authority for secondary education, are not here referred to, but will be found, with the considerations on which they are based, in the main body of the report.

Recommendations relating to secondary education.

2. No satisfactory reorganisation of the university system of Bengal will be possible unless and until a radical reorganisation of the system of secondary education, upon which university work depends, is carried into effect. The deficiencies of the existing secondary system are radical and patent. They arise, in the main, from four principal causes. (Chapters VIII and X.) (*a*) In the first place, most of the high English schools are under-equipped and are conducted by an underpaid and for the most part an untrained staff. (Chapters VIII and XXI.) (*b*) In the second place, they are unduly dominated by an examination (the matriculation) which is itself ill-designed and not of sufficiently high standard, and which gives no encouragement to many lines of study necessary for the welfare of the pupils and for the prosperity of the country. (Chapter IX.) (*c*) In the third place, owing to the existing division of authority between the University and the Department of Public Instruction there is no adequate machinery for supervising, guiding and assisting the work of the schools as a whole; in other words, no coherent system of secondary education yet (Chapters X and XXVIII, paras. 50-53.)

Chapter XII. exists. (*d*) In the fourth place, a large and vitally important part of secondary instruction is actually conducted, not by the schools, but by the colleges of the University in their intermediate classes; and, because it is so conducted, it largely fails of its purpose, partly because the methods chiefly employed (those of the mass-lecture) are unsuitable for work at this stage, and partly because many subjects and lines of study, especially those which have a vocational bearing, are almost wholly disregarded.

3. A radical reform of these conditions is necessary not only for university reform, but also for national progress in Bengal. The principal changes which we recommend for this purpose are as follows:—

Chapter XXXI, para. 3.

(*i*) The stage of admission to the University should be (approximately) that of the present intermediate instead of that of the present matriculation.

Chapter XXXI, para. 4, and Chapter XXXII, paras. 1-9.

(*ii*) The duty of providing training at the intermediate stage should be transferred from the universities to new institutions to be known as 'Intermediate Colleges,' some of which should be attached to selected high schools, while others should be organised as distinct institutions. There should be at least one intermediate college in each district of the Presidency, besides a certain number in Calcutta and Dacca; and the

Chapter XXXII, paras. 12-15.

courses of the intermediate colleges should be so framed as to afford preparation not only for the ordinary degree courses of the University in arts and science, but also for the medical, engineering and teaching professions and for careers in agriculture, commerce and industry.

Chapter XXXII, para. 10.

(*iii*) The intermediate colleges for men should in all cases be separate from degree colleges, and even where they are provided or managed by closely-linked authorities, should be organised under a distinct educational and financial control.

Chapter XXXI, paras. 46-51 and 55.

(*iv*) There should be two secondary school examinations, the first, approximately corresponding to the present matriculation, to be taken at the end of the high school stage, at the normal age of 16, or, in special cases, at

Chapter XXXI, paras. 40-45, and

the age of 15, and to be known as the high school examination; the second, approximately corresponding to the present intermediate, but much more varied

in its range, to be taken at the end of the intermediate college course, at the normal age of 18, and to be known as the intermediate college examination. Success in this examination should constitute the normal test of admission to university courses. The range and standards of both of these examinations should be carefully reconsidered. Detailed recommendations on these heads will be found in Chapter XXXI, paragraphs 31-70, and in Chapter XXXII. Chapter XXXII.

(*v*) The existing Department of Public Instruction is not so organised as to be able to regulate and supervise the new system; more than half of the high English schools are at present entirely outside its jurisdiction. And although the University is entitled to a large voice in their affairs, its governing bodies cannot be so organised as to be able to deal effectively with them, especially as they lack the necessary funds. We therefore recommend that there should be established a Board of Secondary and Intermediate Education, to consist of from fifteen to eighteen members, with power to appoint advisory and other committees including outside members. Among the statutory committees of the Board should be included a committee on the education of girls and a committee on madrassahs, the latter to conduct the examination of the reformed madrassah course. The Board should also have the power to constitute provincial or divisional advisory councils. Chapter XXXI, paras. 11-39 Chapter XXXVI, para. 6. Chapter XXXI, para. 27, and Chapter XXXIII, para. 108.

(*vi*) It should be provided that a majority of the Board should consist of non-official members, and that the Board should always include at least three representatives of Hindu and at least three of Muslim interests. Subject to these provisos, the Board should include: (*a*) a salaried President, appointed by Government; (*b*) the Director of Public Instruction, *ex-officio*; (*c*) a member elected by the non-official members of the Bengal Legislative Council; (*d*) five representatives appointed by the University of Calcutta and two by the University of Dacca; (*e*) from five to eight members appointed by Government among whom should be included (if Chapter XXXI, paras. 22-23 *Ibid*, para. 25

not otherwise provided for) representatives of the needs of industry, commerce, agriculture, medicine and public health, secondary and intermediate education, the educational needs of girls and those of the domiciled community.

Chapter XXXI, paras. 31-39.

(*vii*) The powers of the Board should be: (*a*) to define the various curricula to be followed in high schools and intermediate colleges; (*b*) to conduct the two secondary school examinations described above, subject to the proviso that the universities should in each case have the power to determine what forms of the intermediate college examination they would accept, and under what conditions, as qualifying for admission to their courses in various faculties; (*c*) to grant, after inspection, formal recognition to high schools and intermediate colleges as qualified to present candidates for the high school or the intermediate college examinations, and as adequately organised and equipped places of instruction; (*d*) to advise Government as to the needs of these grades of education, and as to the best modes of expending the available funds for these purposes. In the opinion of the majority of the Commission it is essential for the adequate performance of the functions of the Board that it should have an inspectorial staff of its own and that it should exercise substantial executive powers, especially in regard to the distribution of grants to schools and intermediate colleges (within the limits of the allotments made for these purposes by Government in its annual budget), and in regard to the exercise of control over such high schools and intermediate colleges as may be maintained out of public funds.

Chapter XXXI para. 16.

(*viii*) The Board thus organised, with its President, should not be wholly separated from the Department of Public Instruction, but should be regarded as an important branch or aspect of the whole system of educational organisation, closely linked with the other branches, especially through the Director of Public Instruction. The character of the Director's office would thus be materially changed. He would be

relieved of much detailed work, but he would become chief of the staff and expert adviser to the Member or Minister in charge of Education, and would himself be in touch with all the aspects of educational work. To express this important change in the functions of the Director we recommend that he should be given the position of a secretary to Government.

(*ix*) In order to give unity to the educational system by reducing the existing cleavage between Government schools and colleges and privately managed schools, and by facilitating an interchange of teachers among these institutions, the main body of the teaching staff of the Government schools and intermediate colleges should be gradually reorganised upon a professional rather than a service basis, the fullest safeguards being taken to protect the actual or prospective rights of members of the existing services, and to ensure an adequate salary scale and reasonable security of tenure under the new system. At the same time a superannuation fund for teachers should be organised to replace the existing pension system for future recruits to the profession. To this superannuation fund all aided schools should be required, and all recognised but unaided schools should be encouraged, to contribute. Chapter XXXI, paras. 85-98.

(*x*) In view of the need of enlisting the services of a number of western-trained teachers in the reorganisation of secondary and intermediate work in Bengal, a special corps of western-trained teachers should be organised, the members of which should be enlisted not on uniform graded rates of pay, but on such terms and conditions as might be necessary to secure the right types of men and women in each case. Their services should be available, under the direction of the Board, either in Government institutions, or in private institutions which expressed a desire for their services. Chapter XXXI, paras. 99-104.

General recommendations regarding university work.

4. Although an effective reorganisation of secondary and intermediate education would greatly improve the quality of university

work, by improving the quality of the students entering the University, and by withdrawing for more appropriate treatment very large numbers of students who are unready for university methods of instruction, this would not of itself remove the grave evils which now exist; the university system of Bengal is, in our judgment, fundamentally defective in almost every aspect, and, in so far as it does good work, does it in spite of the method of organisation now in vogue.

5. The defects of the system, which we have analysed in detail in the earlier part of this report, affect primarily the students following courses in the Faculties of Arts and Science, who number about eleven out of every thirteen of the total. These defects may be briefly summarised as follows: (*a*) The numbers are too great to be efficiently dealt with by a single university organisation; (Chapters II and XIII.) and this will remain true even if the intermediate students (two-thirds of the whole number) are withdrawn. (*b*) The undergraduate courses of instruction in arts and science are given by colleges which are almost entirely self-contained and in many cases widely (Chapter XIII, paras. 7-16.) scattered, and generally too meagrely staffed and equipped to be able to do justice to their students; some of them being wholly, and most of them mainly, dependent upon the fees paid by the students—a source of income wholly inadequate for the purpose. Even in Calcutta, where there are many colleges, there is no efficient co-operation. (*c*) The courses of instruction are too predominantly (Chapter XIII, paras. 44-56.) literary in character and too little varied to suit various needs; nor is there adequate provision for training in technical subjects. At the same time, the methods of instruction are far too mechanical, depending mainly upon mass-lectures, and giving a quite insufficient place to individual guidance and advice, nor do they allow for variation of method to meet the needs of different students. This is due in part to the enormous numbers which have to be dealt with; in part to the influence of a bad tradition; but mainly, perhaps, to the fact that since the University is (in regard to under- (Chapter XVII, paras. 9-37.) graduate work) almost exclusively an examining body, external to the colleges, the colleges tend to regard themselves as mere coaching institutions, and the influence of the examinations exercises an undue domination over the minds of teachers and students alike. (*d*) The great majority of the teachers are gravely (Chapter XIII, paras. 38-43.) underpaid, and have no legal security of tenure and next to no freedom in their work, while most of them have no prospect

of attaining to positions of dignity and importance, such as would form a stimulus to good work; the result is, that the profession of a college teacher has no prestige and attracts few men of the highest ability. (e) While the University has recently undertaken the direct control of almost the whole of the post-graduate work for the degrees of M.A. and M.Sc., and has brought about considerable improvements in this regard, there is, because of this division, an unhappy cleavage between the higher and lower teaching work of the University and its colleges, which has led to some friction, and has tended to the impoverishment of undergraduate work. (f) The system of government and administration of the University is unsatisfactory and ineffective as an instrument for the encouragement of learning; and the relations between the University on the one hand and the colleges on the other are of such a kind that, while there is no really effective means of securing the efficiency of the colleges, yet they are under an unduly rigid control which restricts their freedom of action and makes it difficult for them to show any independent initiative. (g) The University is loaded with administrative functions, particularly in regard to the recognition of schools, which it cannot adequately perform, and which bring it into difficult relations with the educational organisation of the State. (h) The relations between Government and the University are of an unsatisfactory kind, involving far too much detailed Government intervention which cannot be satisfactorily exercised and which undermines the sense of responsibility of the university authorities; while the peculiar relation between the University of Calcutta and the Imperial and provincial Governments adds an element of complexity and confusion which is not found in the other Indian universities. (i) The regulations which govern the work of the University are unduly rigid and difficult to modify. (j) Despite consistent efforts and large expenditure during recent years, the conditions under which many of the students live are such as must be deleterious to their health, morals, and work; and there is a lack of that corporate spirit which constitutes one of the most educative factors in university life. (k) Finally, owing to the practice which has been followed ever since the foundation of the Indian universities of treating university qualifications as the sole formal credentials for public employment—a practice which has been insensibly extended so that even minor clerkships

and Chapter XIII, paras. 31-36.

Chapter XV.

Chapter XXVII.

Chapter XIII, paras. 37-43.

Chapters X and XXVIII, paras. 50-53.

Chapter XXVIII, paras. 1-8.

Ibid. paras. 9-17.

Ibid. paras. 54-57

Chapter XIX.

Chapter XXVIII, paras 117-149.

are in a large degree filled on this basis—too many of the students think of their university course not as a thing worth pursuing for itself, or as a training for life, but simply as a means of obtaining admission to careers for which, in many cases, no university training ought to be required.

6. One of the essential and most efficient remedies for the evils described in the foregoing paragraph is the creation of new universities, wherein the teaching function can be assured of its due predominance. To this end we recommend the organisation of the teaching resources which exist in the city of Calcutta in such a way as to create a real teaching university; we recommend that the project of a university at Dacca should be carried into effect at the earliest possible moment; and we also recommend the adoption of a mode of organisation for the mufassal colleges which will encourage the gradual rise of new university centres by the concentration of resources for higher teaching at a few points. But before we turn to these proposals it will be convenient to set forth certain general recommendations affecting all the university organisations alike, Calcutta, Dacca, and the future or 'potential' universities of Bengal.

Chapter XXXIV.

Chapter XXXIII.

Chapter XXXV.

7. The following recommendations are applicable to all universities which may now or in the future be created in Bengal :—

Chapter L, paras. 3-4.

(*xi*) The Governor-General and the Government of India should cease to stand in the special relationship which they at present occupy in relation to the University of Calcutta. The Imperial Legislative Council should retain responsibility for all legislation affecting the fundamental Acts of universities; and the Governor-General should assume the office of Visitor of the Universities of Calcutta and Dacca and of any future universities which may in future be created in Bengal performing (with the aid of a special organisation for university work) the functions of visitation, of advice in regard to the co-ordination of effort with the universities of other provinces, of giving encouragement and assistance to research, and of affording help in the recruitment of teachers. We venture to suggest that it would be advantageous if these visitorial functions were similarly exercised over all the universities of British India.

Ibid. paras. 43-55

(*xii*) The Governor of Bengal should be Chancellor of the Universities of Calcutta and Dacca, and of any future universities in Bengal, performing functions in many respects different from those now assumed by the Chancellor: these functions are more fully defined in Chapters XXXIII, XXXVII and L. Chapters XXXIII, para. 170, XXXVII, para. 20 and L, paras. 17-20.

(*xiii*) The Government of Bengal should take the place of the Government of India in all ordinary dealings between the State and the universities in Bengal; though the functions of Government in this regard should be in many respects different from what they now are, and in particular, should involve much less detailed interference in academic affairs than is now the case. Chapter XXXIII, Chapter XXXVII and Chapter L, paras. 9-15.

(*xiv*) The regulations governing the work of the universities should be made less rigid, and should be classified in accordance with the character of their subject-matter. The classification which we recommend is as follows: (*a*) The *Act*, made and alterable only by the Imperial Legislative Council; (*b*) the *Statutes*, made in the first instance (as a schedule to the Act) by the Imperial Legislative Council, but subsequently capable of being altered or added to by the Court of the University, subject to the approval of the Government of Bengal; (*c*) the *Ordinances*, made by the Executive Council of the University, subject to ratification by the Court, the Chancellor having the right of veto; (*d*) the *Regulations*, made by appropriate bodies in the University to which such powers are entrusted by Statute or Ordinance. Chapter XXXVII, paras. 12-17 and Chapter XXXIII, para. 65.

(*xv*) Honours courses, distinct from the outset from pass courses, should be instituted in the universities in order to make provision for the needs of abler students; and the pass courses should be arranged in coherent groups of subjects. Facilities should be afforded for change from pass to honours courses and *vice versâ*. Chapter XXXIV, paras. 35-43.

(*xvi*) The duration of the degree course should be three years after the intermediate stage; this provision being applied immediately in regard to honours courses, and at an early date in pass courses. In appropriate cases Chapter XXXIV, paras. 29-34.

honours graduates should be permitted to proceed to the degree of M. A. one year after taking their degree.

Chapter XXXIII, para. 89. Chapter XXXIV, paras. 101-105.

(*xvii*) The titles of professor and reader should be strictly reserved for persons upon whom these titles are conferred by a university, and who are in receipt of a minimum salary, to be defined.

Chapter XXXIII, para. 90. Chapter XXXIV, paras. 112-120.

(*xviii*) Appointments to professorships and readerships should be made by special selection committees including external experts; and, in order that there may be in each university a certain number of western-trained teachers of these ranks, a defined number of professorships and readerships in each university should be appointed on the nomination of selection committees acting in England, but including representatives named by the University.

Chapter L, paras. 31-42.

(*xix*) Small Civil Service Commissions should be appointed in connexion with the Government of India and the Provincial Government. The duties of these Commissions should be (*a*) to define the stage of educational attainment which should be required in the case of various groups of posts under Government; (*b*) to conduct competitive tests among qualified candidates for such vacancies as may be announced, under such conditions as may be defined; (*c*) to approve all appointments made by direct nomination in cases where this method of appointment is held to be desirable.

Chapters XIX and XXXIX, paras. 36-44.

(*xx*) In view of the necessity for paying greater attention to the health and physical welfare of students, a director of physical training, holding the rank and salary of a professor, should be appointed in each university; and a Board of Students' Welfare, including medical representatives, should be one of the standing boards or committees of each university. Responsibility for the supervision of the conditions of students' residence should be assigned to the appropriate authorities.

Chapter XLIX.

(*xxi*) Having regard to the comparatively backward condition of the Muslim community in regard to education, every reasonable means should be taken to encourage Muslim students, and to safeguard their interests. We have

held this need always in view, and our numerous and important recommendations to this end are summarised in a special chapter.

Recommendations relating to the University of Dacca.

8. The establishment at Dacca of a new university of the teaching and residential type was promised by the Government of India in 1912, and an elaborate scheme for its organisation has been published. Even if no such undertaking had ever been given, we should have recommended the establishment of a teaching university at Dacca, as a means of relieving the pressure on Calcutta, and of introducing, under favourable circumstances, new methods of university organisation. The importance of the city of Dacca as the second town in Bengal and the centre of Eastern Bengal, as well as the number and variety of its educational institutions, render it a favourable site for an experiment of this order.

Chapter XXXIII, paras. 1-13

Ibid, paras. 15-16

9. While we recognise the great value of the original report of the Dacca University Committee, which set before India, for the first time in a clear form, the ideal of a residential and teaching university, we think that for the sake of economy and simplicity of organisation it is desirable to depart from some of the main features of the scheme embodied in the report. In particular we think that the conditions now existing, and the changes suggested in other parts of our scheme of reform (notably the system of intermediate colleges), render it desirable to depart from three features of the original scheme: (*a*) the organisation of the University as a purely governmental institution; (*b*) the organisation of the University upon a collegiate basis; and (*c*) the staffing of the University almost wholly by means of service appointments. Nor do we think it desirable that separate and distinct provision should be made for the needs of the well-to-do classes, as proposed in the original report. And we have not thought it necessary to follow the Dacca University Committee in defining in detail the courses to be followed, since this seems to us to be an essential function of the new academic bodies when constituted.

Chapter XXXIII, esp paras. 19 and 20

10. We hold it to be of great importance that the new University at Dacca should be set on foot at the earliest possible date; and for that reason, we should advocate its establishment even if it be not found possible at once to provide all the additional

equipment required. Our recommendations in regard to Dacca are as follows :—

Chapter XXXIII, paras. 19-20.

(*xxii*) The University of Dacca should be established as a unitary teaching university, wherein all formal instruction given in the name of the University should be given by officers of the University and under the direct control of the university authorities, no collegiate organisation being interposed between these authorities and the students.

Chapter XXXIII, paras. 167-198.

(*xxiii*) The principal authorities of the University should be :— (*a*) the Visitor (the Governor-General of India) ; (*b*) the Chancellor (the Governor of Bengal) ; (*c*) a full-time salaried Vice-Chancellor ; (*d*) a widely representative Court, including *ex-officio*, elected and nominated members ; the Court should have the power of making Statutes, of approving the financial policy of the University, and of generally reviewing its work, and, since so large a body could not meet frequently, it should elect a Committee of Reference to represent it in dealing with the Executive Council ; (*e*) a small Executive Council, with substantial powers of control over finance and the general policy of the University and with power to make Ordinances ; (*f*) an Academic Council including the principal teachers of the University, and having large independent powers in all purely academic questions affecting courses of study, examinations and degrees ; (*g*) Faculties, Boards of Studies and other statutory Boards.

Chapter XXXIII, paras. 60-64.

(*xxiv*) Government should make to the University a stated annual block-grant, leaving to the university authorities (subject to annual audit) the responsibility for expending these funds in the most economical way, and for raising, by private contributions or otherwise, such additional funds as may be necessary. An estimate of the amount required for this annual grant will be found in Chapter LI.

Chapter XXXIII, para. 90. Chapter XXXIV, paras. 112-120.

(*xxv*) The teaching staff of the University should ultimately be appointed by the University itself acting through selection committees which should include (in the case of the more important posts) external experts

appointed by the Chancellor; a certain number of defined posts being filled after nomination by a selection committee acting in England, on which the University should be represented. This system can only gradually be brought into operation: and in the first instance it will be necessary to provide the most complete safeguards for the rights, actual and prospective, of the existing members of the Educational Services engaged in educational work in Bengal. For this reason the initial appointments should be made by the Government of Bengal, with the advice of the Vice-Chancellor and the Director of Public Instruction. Minimum salaries should be defined for each class of posts; but the authorities of the University should be free to define the actual salary to be offered in each case above this minimum. The fulfilment of the contracts of appointment should be guaranteed by Government, the guarantee being readily enforcible owing to the fact that the University will be in the main dependent upon Government grants.

(*xxvi*) The teaching work of the University should be organised in departments, each under the responsible charge of a principal teacher, who should usually be a professor, though in some minor subjects he might be a reader. The head of the department should be responsible for the general organisation of the work in his subjects, including tutorial guidance. The details of the departments which seem to us to be necessary at the outset will be found in Chapter XXXIII. Chapter XXXIII, paras. 91-96. *Ibid*, para. 92.

(*xxvii*) The University should be a residential university, not in the sense that all students should be required to live in halls or hostels which are under university control, but in the sense that the majority of the students will need to have such residences provided for them, that the provision and conduct of these residences will be systematically organised, under the direction of the University, and that the residential units will be utilised for the development of social life. The residences should be arranged in large units to be known as halls, each presided over by a senior member Chapter XXXIII, paras. 135-159.

of the staff to be known as the Provost, and sub-divided into houses, each in charge of a tutor and assistant-tutors drawn from the teaching staff of the University. Room should also be found for smaller residential units provided by private agency with the approval of the University; these should be known as hostels, and each should be in the charge of a Warden.

Chapter XXXIII. paras. 160-166.

(*xxviii*) In order to meet the needs of the Muslim community, which is numerically preponderant in Eastern Bengal, a special department of Islamic studies should be organised, leading up to a degree, and forming the culmination of the reformed madrassah course, in accordance with the scheme laid down by the Dacca University Committee. In order that this branch of study may be placed on a parity with other courses, the first two years of it (corresponding to the intermediate course in arts or science) should be conducted by the Dacca Madrassah, which should for this purpose be organised on the lines of an intermediate college.

Chapter XXXIII, paras. 98-108.

(*xxix*) There should be a strong representation of Muslim interests upon all the governing bodies and the principal boards and committees of the University; there should also be a Muslim Advisory Committee; and one of the halls should be specially organised for Muslim students.

Chapter XXXIII, *passim* and Chapter XLIX.

Recommendations for the establishment of a teaching university in Calcutta.

11. It is in our judgment essential that the teaching resources existing in the city of Calcutta should be so reorganised as to ensure that the best available teaching shall be open to all students, so far as accommodation and time-tables permit. It is impossible, in Calcutta, to effect this on the lines of a unitary university such as we have proposed to establish in Dacca, because the numbers to be dealt with are too large, while the colleges, many of which have done valuable work during a long period, cannot be disregarded. What is needed is a new synthesis between the University in its teaching aspect, and those colleges which are sufficiently well-equipped to be capable of taking part in a system of co-operative teaching. We have considered a number of alternative schemes for the solution of this difficult problem; and while we have been

unable to accept any of these in full, we have found many sugges- Chapter XXXIV, paras. 8-23.
tions in them. To carry into effect the reorganisation which is required a complete reconstruction of the system of university government will be necessary. It will also be necessary that the colleges should abandon the ideal of being self-contained and self-sufficient, to which the existing system has tempted them to cling, and should be prepared to co-operate with one another and with the University; that new and more effectual means should be devised for enabling the University to exercise a due control over the quality and character of the teaching given in its name, without impairing the freedom of good colleges; and that, in the system as a whole there should be a great increase of elasticity, such as will enable the colleges to pay due regard to the varying needs of their students.

12. In order that the synthesis between the University and its Chapter XXXIV.
colleges may be made effective, many changes in the present system will be necessary. (*a*) Those colleges which are to take part in a co-operative system must be more adequately staffed and equipped than they now are; and in order to make this unmistakably clear, it will be necessary to classify the colleges in such a way as to admit to the privileges of the co-operative system only those colleges which are able to make a real contribution to it. This distinction will be more fully developed later. (*b*) The colleges which are fit to take part in a co-operative system, and only these, must, as such, be directly and effectively represented upon the academic bodies of the University, which ought to consist largely of members of the teaching staffs of such colleges. (*c*) The University, thus reconstituted, ought to be in a position to ensure, more fully than is now possible, that the teaching given in its name is of adequate quality, while at the same time the colleges ought to retain control over, and responsibility for, the appointment of their own teachers. (*d*) The colleges ought to have greater freedom than they now enjoy in arranging and directing the work of their students, partly by having a larger voice in the definition of curricula, but still more by being free to determine, within defined limits, how much formal instruction, and of what kinds, their students should receive; and they should enjoy this freedom in regard to pass, honours and post-graduate students. (*e*) The colleges ought to take their share in post-graduate work, and the University ought to take its share in undergraduate work; and the instruction

of the best teachers in the University and in all the colleges (to which the majority of the university teachers should be attached) should be made available so far as practicable for students from all the colleges. (*f*) The University ought to be responsible for facilitating this, by arranging for the best college teachers to give lectures which will be open to all the students, and by issuing lists of such lectures; while the colleges ought to be responsible for advising their students how far they should resort to these lectures, how far to ordinary college lectures, and how far they should utilise other forms of college instruction in small classes, etc. (*g*) In addition to providing lecture instruction, the colleges should be made responsible for giving individual guidance and advice to students on a far more adequate scale than is now usual, and for ensuring that their students reside in proper conditions and have reasonable opportunities for physical training and recreation and for social intercourse. In short we desire a new synthesis between the work of the University and the work of the colleges, a synthesis in which the colleges could not dominate the University nor the University dominate the colleges, as if the former were a separate organisation. This would not be the case, because the University would be fully representative of all academic interests and every aspect of academic life.

Chapter XXXIV, paras. 111-151.

13. Some colleges in Calcutta will at first be incapable of taking part in such a co-operative system as we have wrought out. For these colleges temporary provision on something like the existing basis will be necessary, until they shall have been enabled—we hope with both public and private assistance—to bring themselves up to the requisite standard. Provision will also have to be made for the needs of mufassal colleges, a problem which is separately dealt with below. But all these needs have to be kept in view in devising the new organisation, and especially in dealing with the critical and vitally important period of reconstruction, which will certainly cover a period of several years. Our recommendations in regard to the Teaching University of Calcutta are briefly set out below; but the problem is so complex that here, even more than elsewhere, it is necessary to note that our scheme of reform can only be fully understood by reference to the chapters (especially XXXIV and XXXVII) in which it is worked out in detail. Any brief summary is liable to be misleading.

14. With these provisos, our recommendations for the organisation of a teaching university in Calcutta may be summarised as follows :—

(*xxx*) The system of governance of the University should be reconstructed; and in future the authorities of the University of Calcutta should be :— Chapter XXXVII.

(*a*) the *Visitor* (the Governor-General of India) Para. 18.

(*b*) the *Chancellor* (the Governor of Bengal) Para. 20.

(*c*) A salaried full-time *Vice-Chancellor* with the pay and status of a High Court judge. Para. 21.

(*d*) A *Treasurer*. Para. 22.

(*e*) A widely representative *Court*, including *ex-officio* and elected members, and a small number of nominated members. The Court under our scheme would have several hundred members, and be representative of every important educational interest in Bengal. It would (1) make Statutes and ratify Ordinances, (2) review the work of the University, (3) approve the financial estimates. As a body so large could not often meet, it should elect a *Committee of Reference*, to act on behalf of the Court, in sundry matters. Paras. 26-38.

(*f*) A small *Executive Council* of 17 members which should be responsible for the financial and administrative management of the University, and should have power to make Ordinances. Paras. 39-47.

(*g*) An *Academic Council* of 80 to 100 members, including representatives of all constituent colleges, and of all grades of teachers, which should be responsible for regulating the teaching work of the University, and in general for purely academic questions. Paras. 48-57.

(*h*) Faculties, Boards of Studies, Committees on Courses, a Board of Examinations, a Board of Students' Welfare, and other standing Boards and Committees (including the Mufassal Board and the Board of Women's Education separately referred to below). Paras. 58-71. and 76-88.

(*xxxi*) The University should be organised primarily as a teaching university, consisting of incorporated and constituent colleges: the incorporated colleges being

Chapter XXXVII, para. 73.

institutions owned and managed by the University itself, the constituent colleges being distinct corporations enjoying full membership of the University, fulfilling defined conditions, performing defined functions and enjoying defined privileges. The affiliating functions of the University (in regard to temporarily affiliated colleges in Calcutta, and to mufassal colleges) should be regarded as subsidiary, and of a more or less temporary order.

Chapter XXXIV, paras. 141-151. Chapter XXXV, paras. 34-41.

(*xxxii*) The conditions of admission to the rank and privileges of a constituent college should be laid down by Statute, and should define (*a*) the number of students such a college may admit; (*b*) the number of teachers to be provided in proportion to the number of students; (*c*) the minimum rates of pay and conditions of service to be provided by the college for its teachers; (*d*) the conditions to be observed by the college regarding the residence of students; (*e*) the minimum accommodation and equipment (including libraries and laboratories) to be provided in the subjects in which the college had recognised teachers; (*f*) the method of administration of the college; (*g*) the conditions under which teachers appointed by a college should be subsequently approved by the University, and the extent to which such approval should be required, provided always that the college should have control over appointments to its own staff. The colleges admitted to constituent rank should be named in a Statute, any alteration of which would require the assent of the Government of Bengal.

Chapter XXXIV, paras. 121-133.

(*xxxiii*) Colleges admitted to constituent rank should enjoy the following privileges:—(*a*) they should each be directly represented upon the Academic Council; (*b*) their students (undergraduate and post-graduate) should be entitled to attend university and inter-collegiate lectures without payment of special fees; (*c*) their 'recognised' teachers should be eligible for appointment as university professors, readers, lecturers and examiners without leaving their colleges, and for membership of all academic bodies; (*d*) they should have full

Chapter XXXIV, paras. 134-140.

control over the discipline of their students, and (subject to general regulations) over the amount and type of instruction to be received by them.

(*xxxiv*) In the proposed system of co-operative instruction the functions of the University should be (*a*) to define the curricula of studies; (*b*) to provide for the use of teachers and students libraries, laboratories and other equipment necessary to supplement those of the colleges, as well as lecture-rooms at headquarters; (*c*) to provide teachers especially in subjects not taught by the colleges —teachers in subjects of college instruction, whether for undergraduate or post-graduate work, being normally provided in conjunction with a college or colleges; (*d*) to 'appoint' college teachers to give in addition to their ordinary college work courses of instruction (both undergraduate and post-graduate) which will be open to the whole University, and to make payment for such courses; (*e*) to 'recognise' college teachers whose work is confined to the colleges. Once recognised, no teacher should require fresh recognition for work of the same grade even if he leaves his college. The University should define the minimum qualifications which it will normally accept for teachers working as junior assistants, or as college lecturers respectively. All college teachers should be submitted for recognition immediately after their appointment by the college, and recognition should only be refused on the express ground that the candidate was not qualified for the work proposed to be allotted to him. A denial of recognition by the University should not invalidate the appointment of a college teacher; but if at any time the number of unrecognised teachers employed by a college should reach one-fourth of the total, this should be regarded as justifying a withdrawal of its privileges from the college, and the matter should be laid before the Court with a view to an amendment of the Statute conferring constituent privileges upon the college.

Chapter XXXIV, paras. 86-100.

(*xxxv*) In the proposed system of co-operative instruction the functions of the college should be (*a*) to direct the studies of their students, both undergraduate and

Chapter XXXIV, paras. 53-66.

post-graduate, and the courses they are to pursue, subject to any general regulations laid down by the University; (*b*) to decide what, if any, university or inter-collegiate lectures they shall individually attend; (*c*) to provide such courses of lectures, special classes, and other forms of instruction as in the judgment of the college authorities may be required by their students; (*d*) to provide for every student individual guidance and advice in his studies; (*e*) to certify to the University that every student before submitting to examination has undergone a systematic course of instruction in all his subjects, or to withhold such certificate where necessary; (*f*) to provide the necessary teaching equipment in the subjects in which it undertakes to give instruction; (*g*) to supervise the residence, health and discipline of their students. The colleges should enjoy freedom and responsibility in performing these functions, and in particular in appointing its staff. The staff of a college might under this system include teachers of three grades:—(*a*) college teachers who are also 'appointed' teachers of the University, partly paid by the University, and some of whose lectures are open to the whole University; (*b*) college teachers who are 'recognised' teachers of the University, but whose instruction (except by special arrangement) is open only to students of the college; (*c*) unrecognised teachers, who should be few in number.

Chapter XXXIV, paras. 152-169.

(*xxxvi*) Presidency College, which has aways been the principal and the best equipped centre of teaching in the University, should continue to play this part but its resources should be so far as possible made available to the University as a whole. Hitherto Presidency College has represented the principal contribution of Government to collegiate education in arts and science for men students in Calcutta. In order that Presidency College may freely play its part in the new system, along with other constituent colleges, and in order that this aspect of the financial responsibility of Government for university education may be clearly defined, the college should be reorganised under the direction

of a governing body appointed by Government, and including also representatives of the University and of the college teachers. The governing body should be allotted a stated annual block-grant at least equal to the total present expenditure on the college, and should (subject to annual audit) be free to expend this revenue, together with any other sources of revenue which might accrue from fees, subscriptions or endowments, at its discretion. It should (subject to the fullest safeguards for the existing and prospective rights of members of the Educational Services) be free to make appointments to vacancies in the teaching staff without reference to service rules, under such conditions as might be defined by Government at the time of transfer, and in accordance with the regulations of the University; but at least ten chairs, to be held by teachers of the college, to be known as Presidency Chairs, and to carry all the dignity and privileges of professorships in the University, should be reserved for western-trained scholars, and should be filled after nomination by a Selection Committee acting in England; part of the instruction offered by the holders of these chairs being open to the whole University. paras. 167-169.

(*xxxvii*) Appointments to professorships, readerships and lectureships in the University should in every case be made with the aid of a specially appointed committee of selection, which should, in the case of professorships and readerships, include three external experts nominated by the Chancellor. In all cases in which a professorship or readership is associated with a particular college, or in which the college provides a part or the whole of the emoluments of the post, the college should be represented on the Committee of Selection, and should have the power to veto any particular appointment. With this exception all appointments to teaching posts in a constituent college should be in the hands of the college, the University reserving the power to give or withhold recognition. Chapter XXXIV, paras. 112-120.

Chapter XXXIV, paras. 141-151

(*xxxviii*) Colleges which are unable to fulfil the conditions laid down for admission to constituent rank, but whose continued maintenance is necessary for the accommodation of students, should be granted, on defined conditions, the privileges of temporary affiliation for a period of five years, in order to give them an opportunity of satisfying the conditions for constituent rank. Such colleges should not be directly represented upon the governing bodies of the University; their students should not be eligible to attend lectures given by university teachers or approved teachers in the constituent colleges, except by special arrangement and on payment of a fee; their teachers should not, as such, be eligible as members of university bodies, or be recognised as university teachers, or be appointed as examiners. The affairs of colleges in this group should be controlled by a special committee reporting to the Executive Council, on which the colleges should not be represented, though they would have a right to be heard.

Chapter LI, paras. 39-44.

(*xxxix*) It is necessary to afford financial assistance to colleges in order to enable them to fulfil the condition of admission to constituent rank. It is also necessary to establish at an early date new arts colleges, notably an Islamia College for Muslim students, to which university chairs or readerships in Arabic, Persian and Islamic history should be attached, and an orthodox Hindu college,

Para. 45.

based upon the degree department of the Sanskrit College, to which university chairs or readerships in Sanskrit and Pali should be attached.

Chapter XXXIV, para. 99.

(*xl*) All colleges should be inspected at intervals of not more than three years, and a single general inspection report should be circulated.

Chapter XXXIV, para 140.

(*xli*) All applications to Government for additional assistance made by or on behalf of the University itself or any of its colleges, whether incorporated, constituent or temporarily affiliated, should normally be forwarded through the Executive Council (or Commission) at a fixed time of year, and the Executive Council in forwarding them

should be empowered to append its own comments and recommendations.

(*xlii*) In view of the great difficulties attending a simultaneous transplantation of institutions so numerous as those connected with Calcutta University, and the certainty that unless all were transplanted, the co-operative system of teaching would be rendered impracticable, and in view of the impossibility of leaving a city of the size of Calcutta without a university organisation at its centre, we consider that the attractive proposal to remove the University to a rural or suburban site must be abandoned. The centre of the teaching and administrative work of the University should continue to be in the College Square area, where the administrative and teaching centres of the colleges should also be as far as possible concentrated. But land should be acquired in the suburbs for residential purposes and for playing fields; and the whole problem of the sites of educational buildings in Calcutta and its district should be carefully planned and worked out in conjunction with the Calcutta Improvement Trust and the Corporation. Chapters XX and XXXVIII.

(*xliii*) In order to safeguard the interests of the Muslim community, there should be representatives of Muslim interests upon the principal governing bodies, boards and committees in the University; the particulars of this representation will be found in Chapter XXXVII. We also recommend the establishment of a Muslim Advisory Board with power to address any constituted body of the University upon any question affecting the interests of Muslim students. Chapters VI, XLIX and XXXVII.

(*xliv*) For the determination of any dispute between any college or university teacher and the appointing authority regarding the fulfilment of the teacher's contract on appointment, the University should appoint a tribunal, by whose decision both parties should be bound to abide. Chapter XXXVII, para. 89.

(*xlv*) Any college or community or group of teachers who feel themselves aggrieved should have a right of appeal to the Chancellor, who should have power to appoint a small impartial commission of enquiry. Chapter XXXVII, para. 90. Chapter L, para. 20

Chapter XXXIV, paras. 178-180. Chapter XXXVII, paras. 1-95. See also paras. 53-63. below.

(*xlvi*) The scheme of reorganisation defined in the foregoing clauses involves far-reaching and complex changes. The new governing bodies proposed to be established cannot be immediately organised until the classification of colleges is determined, and until the rearrangements necessitated by the system of intermediate colleges have been carried into effect. It is therefore essential that during the period of reconstruction there should be a small Executive Commission with exceptional powers. The arrangements which will be necessary during the period of reconstruction will be further discussed at the end of this chapter.

Recommendations regarding mufassal colleges.

Chapter XIII, paras. 116-134.

15. The problem of dealing with the scattered colleges in the mufassal is a very difficult one. It is impossible for them, in their present condition and with their existing resources, to give to their students a training which would deserve to be described as university education. At present, moreover, these colleges suffer from lack of direct contact with the work of the University. Few of them have representatives upon the governing bodies of the University, and these few only by accident. They have therefore no share in the responsibility for framing the courses of study which they pursue, nor can they adapt themselves to the needs of their districts. These colleges will be deeply affected by the main features of our proposals; on the one hand by the manifestly superior training which will be obtainable when strong teaching universities are established in Calcutta and Dacca; on the other hand by the withdrawal of all the intermediate students on whose fees their existence largely depends. It would be excessively costly, and indeed impossible, to bring them all up to such a point of efficiency in respect of staff and equipment as would turn them into true university centres. On the other hand, it would be a disaster if, for these reasons, the whole body of mufassal degree students were drawn into Calcutta and Dacca.

Chapter XXXV, paras. 1-12.

Chapter XXXV, paras 13ff.

16. We are satisfied that some form of special treatment is necessary for the mufassal colleges. We have discarded one proposal having this end in view—the proposal that a new University of Bengal should be forthwith established. We believe that the best solution will ultimately be that by a judicious concentration

of resources a few of these colleges should be encouraged and helped gradually to develope into more highly organised and semi-independent institutions, and ultimately, perhaps, into distinct universities; while others should become intermediate colleges. But we think that this change should not be unduly forced, and that some form of organisation ought to be created which, while rendering possible the development that seems to us most desirable, would not exclude other possible solutions.

17. Our recommendations in regard to mufassal colleges, which are more fully set forth and argued in Chapters XXXV and XXXVII, are as follows:—

(*xlvii*) The mufassal colleges should, for the present, remain in association with the University of Calcutta, and the direction of their affairs should be entrusted to a special Board of Mufassal Colleges, upon which every mufassal college teaching up to the degree level should be represented, while, in order to ensure equivalence of standards, there should be a substantial representation of the Teaching University, and the Academic Council should be consulted upon all proposals affecting degree courses. Chapter XXXV, paras. 32-37. Chapter XXXVII, paras. 76-82.

(*xlviii*) In order to encourage the growth of the stronger colleges which may be capable of becoming potential universities, such colleges should, on fulfilling certain defined conditions, receive the title and rank of 'University Colleges,' and should then be specially represented upon a special panel of the Board, and empowered, with the assent of the special panel and of the Academic Council, to exercise a certain degree of autonomy in the framing of their courses and the conduct of their examinations. Chapter XXXV, paras. 45-51. Chapter XXXVII, para. 81 (*vi*).

(*xlix*) Additional funds will be necessary for the development of the university colleges. Such funds as may be available for this purpose should be expended by Government after report from the Executive Council (or Commission) of the University. All applications for additional assistance made to Government by or on behalf of mufassal colleges should be forwarded through the Executive Council (or Commission), which should, in forwarding them, be empowered to make Chapter XXXV, paras. 44, 50. Chapter XXXVII, para. 81 (*viii*). Chapter L, paras. 12-13.

its own recommendations and suggestions, and might ask for a report from the Board of Mufassal Colleges.

Recommendations regarding the education of women.

Chapter XIV. 18. We have been deeply impressed by the very great importance of encouraging a more rapid development of women's education in Bengal, by the social difficulties with which this problem is surrounded, and by the extremely slight progress which has hitherto been made. But we are of opinion that, owing to the directness with which it touches deep social issues, this problem ought to be dealt with by bodies especially conversant with the needs and interests involved.

19. Our recommendations regarding the education of women and girls are as follows :—

Chapter XXXVI, paras. 5, 10-11. (*l*) There should be a standing committee of the Board of Secondary and Intermediate Education to deal with the education of girls, such committee to include women and to be empowered to consult bodies consisting of women only, in which *purdah* women could take a part.

Chapters XIV and XXXVI, para. 4. (*li*) An attempt should be made to organise *purdah* schools for Hindu and Muslim girls whose parents are willing to extend their education to 15 or 16.

Chapter XXXVI, para. 12. (*lii*) In view of the small number of women candidates for university courses, the intermediate classes should not be separated from the degree colleges for women.

(*liii*) We realise that an increasing number of women students will require the most advanced teaching that the University can provide. We hold, therefore, as a matter of principle, that women should be admitted as far as possible to the instruction provided or organised by the University. But we recognise that in the special circumstances existing in Bengal, the main provision for women's higher education must be made in distinct institutions and under special direction.



Chapter XXXVI, paras. 15 17. Chapter XXXVII, paras. 3-55. (*liv*) A special Board of Women's Education should be established in Calcutta University, and should be empowered to propose special courses of study more particularly suited for women, and to organise co-operative arrangements for teaching in the women's colleges, more partic-

ularly for the training of teachers and in preparation for medical courses.

(*k*) Relations should be established between this Board and the Governing Body of the Lady Hardinge Medical College for Women at Delhi. Chapter XXXVI, para. 22.

Recommendations regarding the Government Educational Services.

20. In exploring the condition of secondary anp university education in Bengal our attention has necessarily been much engaged by the working of the educational services. We have found that the service system had in the past a great deal to recommend it, notably the security of its tenure, the comparative adequacy of the salaries which it offered, the prestige which attached to it, and the convenience which it often displayed in enabling the exiguous available teaching force to be used at the points where it was most needed. We have found, also, that the system has attracted many able and devoted men to the service of education, and has obtained a very strong hold over the minds of Indian teachers, who in a multitude of cases prefer work under service conditions to any other kind of teaching work. But our survey has convinced us that the disadvantage of a service organised on the existing basis go far under present conditions to outweigh its advantages. The system is in some respects marked by undue rigidity. The distinctions between its grades arouse irritation, and sometimes lead to unintentional injustices. It makes a sharp and in many ways unfortunate cleavage between those who are employed in Government schools and colleges, and the much larger and rapidly increasing number of teachers who are engaged in private schools and colleges. It gives rise to administrative inconveniences, and from this point of view has been condemned by many leading members of the Educational Services themselves, and by several Directors of Public Instruction. We have been convinced that the time is at hand when the service system of recruitment for educational work should be gradually abandoned, or be so transformed in character that the continued use of the term 'services' would be misleading; and that the organisation of teaching work should be on a professional basis rather than on a service basis. But this should be done by gradual stages, and with every possible safeguard for the rights, present and prospective, of existing members of the services in all grades. The general character

Chapter XIII, paras. 20-28.

Chapter XXXI, paras. 85-89.

Chapter XXVIII, paras. 93-116.

Chapter L. paras. 21-30.

of our recommendations will already be apparent from earlier paragraphs, and notably from the recommendations numbered (*ix*), (*x*), (*xxvi*) and (*xxxvii*) above; they are also analysed in Chapter L of this report. But it may be convenient here to summarise these changes in a single view, on the ground of the importance of the departure which we propose should be gradually made.

Chapter L, paras. 21-30. See Note by Dr. Zia-ud-din Ahmad and Dr. Gregory, paras. 27-34.

Chapter XXXI, paras. 85-98. Chapter L, paras. 29-30.

(*lvi*) In regard to the secondary and higher secondary branches of education we think that the ultimate establishment of a professional organisation of the main teaching body in all schools under the direction of the Board should be aimed at from the outset; teachers being free to transfer their services from private to Government schools or *vice versâ*, and being all participants in a general system of superannuation, managed by the Board. We recommend that reasonable conditions as to the salary and tenure of all teachers should be exacted by the Board from all schools under its jurisdiction.

Chapter XXXI, paras. 99-105. Chapter L, para 30.

(*lvii*) In view of the need of western-trained teachers in these grades of education, we have recommended the recruitment of a special corps of teachers, who would be employed and paid by Government (through the Board) and would enjoy full security and pension rights. This 'corps' may be regarded as a modified service, but with two differences: (*a*) that there would be no fixed or invariable hierarchy of grades; and (*b*) that the work of the teachers so employed would not be limited to Government institutions.

Chapter XXXIII, paras. 52-59. Chapter XXXIV, paras. 161-164 Chapter L, para. 24.

(*lviii*) For university work we consider the service system to be unsuitable, especially in its present form; and we have recommended that in the new University of Dacca, in Presidency College, and in other Government colleges engaged in university work, appointments should in future be made not by the Secretary of State or by the local Government, but by the governing bodies of the universities and colleges concerned. At the same time we have suggested safeguards against abuse (*a*) by providing for a special form of selection committee; (*b*) by providing that in the case of certain listed posts

which it is desirable to fill with western-trained scholars of distinction, nominations should be made by special selection committees in England, on which the University and the college (where a college is affected) would be represented; and (c) by the recommendation that Government should guarantee the salary and pensions or superannuation allowances attached to these posts. Chapter XXXIV, paras. 168-169.

(*lix*) Our recommendations in this regard do not apply to the administrative educational services. Chapter XXXI, para. 96 and Chapter L, para. 22

The comparative advantages of a Government service of teachers and of an organised teaching profession.

21. In view of the great importance of the issues which are involved in this question, it will be convenient that we should here state more fully the chief reasons which lead the majority of us to regard a professional rather than a service organisation of teachers as being, on the whole and ultimately, the better adapted to the needs of a comprehensive system of education.

22. The teaching profession is not one of those which can be allowed to rely solely on fees paid by the public for professional services. Under such an arrangement sound education cannot be rendered accessible to all at a sufficiently low fee; still less could it be made gratuitous at any of its stages. The action, in some form or other, of the State is indispensable. The State, for the common good, must subsidise the work of teaching. This necessarily raises the question what kind and degree of control over the teachers the granting of State subsidies should involve. Should this control be exerted directly or indirectly, *i.e.*, by subsidising a profession or by making teachers members of the Government service, or by both methods concurrently?

23. Government service for the teaching profession has many administrative advantages. It provides cadres of appointment, well-defined increments of salary, a pension system, rules of leave, a convenient subordination of ranks, and opportunities for disciplinary control. By some, the status of Government employment is highly valued; perhaps by more, the security of tenure which such service generally implies.

24. On the other hand a teacher's duties are only in a minor degree administrative. For this reason the methods of transfer and of promotion which in the administrative services on the whole work well are much less well adjusted to the needs of colleges and schools. In an administrative service, length of official experience is such an important factor in each individual officer's efficiency that the advantages of promotion by seniority generally outweigh its disadvantages, provided that the rule is elastic enough to allow for making occasional exceptions. In teaching, on the other hand, length of experience is as a rule much less important relatively than personal characteristics and individual gift. For this reason, to select a candidate from a number of applicants in view of his special fitness for a particular post in a particular school is in this case generally a more suitable method of appointment than is promotion by seniority in a cadre of a graded service. In an administrative service the head of a department, though he may be at a distance, can usually judge with comparative certainty whether the transfer of an officer from one post to another will be advantageous to the service as a whole. But in the case of the transfer of a teacher, it is the domestic conditions and internal efficiency of each of the two institutions concerned which have principally to be borne in mind. And of such matters no authority at a distance can feel with confidence that it is fully informed.

25. In the second place, Government service for teachers, if organised upon a basis which covers the whole of a country, conflicts with what should be the responsible freedom of local authorities and of the governing bodies of endowed schools (if the latter are brought within the scope of the system) in making appointments to the staffs of the schools under their care. The system tends to officialise education and to centralise its organisation. But every good school should desire to cultivate special characteristics and to preserve the good traditions of its corporate life. Such distinctiveness and individuality among schools must increase in proportion to the degree in which the school system adapts itself to the varied preferences of the people which it serves. These characteristic differences between schools call for a method of appointment which allows the members of the appointing body which has intimate knowledge of the needs of the institution concerned, to select (subject to conditions laid down by public authority with regard to professional qualifications) the applicant

whom they deem to be the best adapted to the circumstances of the particular school.

26. In the third place, privately managed schools, however efficient, are put to disadvantage by the system, because their field of choice is restricted by so large a proportion of qualified teachers being confined to schools under Government management. Government service for teachers, unless it covers the whole field of education, tends to divide the body of teachers into two groups—those in Government schools and those in privately managed schools. Such a division entails some risk to the unity of national education. It is possible to allow on approved conditions selected privately managed institutions to avail themselves, whether at the expense of Government or at their own expense, of teachers who have been appointed and are paid by Government. But many difficulties are inherent in such an arrangement, except when (as is the case in one of our own recommendations) the plan is introduced on a subsidiary scale.

27. In the fourth place, as teaching is an art rather than a business, and as the highest functions of a teacher are scholarly and pastoral rather than administrative, the conditions of employment best adapted to such a calling are those which allow the greatest freedom to individual initiative and self-expression. These conditions are found in a professional organisation rather than in a service directly administered by Government. But education is so closely implicated with public interests as well as with private conviction that the community, or the Government acting in its behalf, cannot dispense with the right of exercising supervision over the qualifications which each entrant into the profession should be required to possess. We believe therefore that the whole body of teachers should *ultimately* be organised by charter as a profession, with a registration council (representing the various bodies and grades of teachers and, in India, both Hindu and Muslim teachers) to regulate the conditions of entrance, to grant admission, and to frame and enforce rules of professional conduct. In view of the public interests involved, the sanction of Government should be required to the conditions proposed for admission to the profession and to any statutes or regulations of major importance which the registration council might think expedient to adopt.

28. We conceive that, under such a form of organisation, professional *esprit de corps* would be combined with an effective degree

of public control; that the unity of national education would be promoted, with due regard to the different qualifications required for service in its various grades; that primary, secondary, technical and university education would each gain by having its representatives upon a council common to the whole profession and discussing its affairs; that the study of the science and art of education would be promoted by the enforcement of such study as a condition of admission to the profession; and that the teachers' calling as a whole would acquire greater dignity and public consideration and thus become more attractive to men and women of ability and promise.

Recommendations regarding the training of teachers.

Chapters XXI and XLIII.

29. A serious deficiency in the numbers of well-qualified teachers is the fundamental weakness in the system of secondary and intermediate education. It is also the cause of an enormous waste of money and of time. There is urgent need in Bengal for many thousands of well trained teachers, equipped with a sound knowledge of what they have to teach and with a clear comprehension of the aims and methods of a good school. In particular, the methods of class teaching are at fault; and the corporate life of the schools is inadequately developed for the formation of character. If the teaching were improved, the school life of the average high school boy could be shortened by two years.[1] The amount which parents in Bengal would save by this economy alone would be not less than 15 lakhs of rupees a year, a sum which would be a substantial contribution towards the cost of the reform of secondary and intermediate education in the Presidency. In addition to this, improved methods of class teaching in the schools would enable parents to avoid in almost every case the cost of providing private tuition for their sons. The amount of this saving we cannot estimate, but it would be very large. And these economies would accompany an actual advance in the attainments of the boys and a material improvement in their mental vigour and physique. The systematic reform of secondary and intermediate education in Bengal will be greatly reduced by these savings on school fees and on private tuition, apart altogether from the intellectual and physical

[1] The average age of candidates for matriculation is now nearly 18½ years. With better teaching it should be 16½ years or lower.

advantage which it would incidentally secure. One indispensable condition of this reform (another aspect of which is a material improvement in the pay and prospects of the teaching profession) is the better professional training of teachers. In this work the Government and the universities should co-operate.

30. The recommendations which we put forward with a view to meeting these requirements are as follows :—

(*lx*) Seven hundred trained teachers should be sent annually into the secondary and higher secondary institutions. Many of these would be employed in the intermediate colleges. The Universities of Calcutta and Dacca should each furnish annually 100 trained graduate teachers. The remaining five hundred should, after passing the intermediate examination, be trained in training colleges established by Government. Chapter XLIII, para. 39.

(*lxi*) At each of the two Universities there should be a department of education under a professor of education assisted by an adequate staff. Under the direction of the professor there should be a training college, to which should be attached a large practising school and also a small demonstration school; the first to accustom the students in training to the methods which should be used in every good school under normal conditions of work; the second, to provide opportunity for educational experiments and for the trial of new methods and courses of instruction. The course of training should in all cases include a prolonged course of practice in teaching. One of the principal aims of these university departments should be to train teachers in the methods of teaching languages (especially English and the mother tongue) and science. They should also (in association with other departments of the University) be the centres of investigation in educational subjects and for the training of advanced students of the principles and history of education. Chapter XLIII, paras. 10-19.

(*lxii*) Education should be included as a subject (*a*) in one of the courses of study at intermediate colleges, and (*b*) in some of the groups approved for the pass B.A. degree. The professor of education should be held generally responsible for the origination of schemes of study in Chapter XXXII, paras. 36-40. Chapter XXXIV, para. 43.

Chapter XLIII, paras. 20-38.

education in the pass degree course and also in the course for the degree of bachelor of teaching. The latter should usually be taken as a second degree, after a course of training extending over one year subsequent to the B.A. or B.Sc. But students who have taken the intermediate courses (including education as one subject) and have subsequently served for two years on the staff of a recognised school should be allowed to proceed direct to the B.T. degree after taking an approved course of instruction, extending over three years, partly in the university departments of arts or science, partly at a training college. For these and other students taking the professional courses for teachers bursaries should be provided on a liberal scale.

Ibid., para. 37.

Chapter XLIII, para. 38.

(*lxiii*) Any student who has taken the B.T. degree should be allowed to present himself for the examination for the M.A. after a course of instruction extending over two years. The principles and the history of education should be added to the list of subjects in which a candidate may present himself for the M.A. degree.

(*lxiv*) The departments of education in the Universities of Calcutta and Dacca should arrange courses of public lectures on educational subjects in these cities and at other centres in Bengal.

Recommendations regarding oriental studies.

31. The systematic development and encouragement of oriental studies is one of the most natural and important functions of an oriental university. But this function has hitherto not been performed in a satisfactory way, partly because the primary function of university work has always hitherto been held to be the development of western learning, and partly because there has been a dislocation of aim between the studies carried on in the University and its colleges, theoretically in accord with western methods, and the traditional studies in the oriental classical tongues which are carried on in the *tôls* (for Sanskrit) and in the madrassahs (for Islamic subjects). The history of these organisations and their relations with the system of western training form a very complex and difficult subject, which is fully investigated in Chapter XVI. In

Chapter XVI.

the result, while in the Sanskrit College and the *tôls*, and (until recently) in the madrassahs, the purely traditional learning was pursued, the attempts made in the University and its colleges to apply western methods to the study of these subjects has been unsatisfactory. A very substantial advance has been made in the last few years in the higher branches of these subjects (especially Sanskrit and early Indian history); but the work of the colleges, and the training given to the mass of students, still remains far from satisfactory. Chapters XV and XVI.

32. At the same time, in spite of the emphasis laid by Government ever since the time of Macaulay upon the importance of serious study and systematic development of the vernaculars, the study of the mother tongue has been gravely neglected alike in the schools, in the colleges, and in the University; the demand of vernacular knowledge made upon the students being of the most inadequate and perfunctory character. The results of this have been unhappy, since it has involved a neglect of any proper development of the student's natural medium of thought. Chapter III, para. 10. Chapter XIII, para. 73. Chapter XVIII, *passim.* Chapter XVI, paras. 28-32.

33. We consider it to be important (*a*) that the purely oriental and traditional studies should continue to be pursued in the Sanskrit College and the Madrassah, but that neither these studies, as traditionally pursued, nor the University, would profit by any attempt to bring them under direct university control; they ought to remain distinctly organised; (*b*) that the development both of the oriental classics and of the vernaculars should receive more systematic attention than has hitherto been given to them and that for this purpose university students ought to have access to the learning of the distinguished *pandits* of the Sanskrit College and *maulvis* of the Madrassah, in so far as these are ready and able to help them. Some arrangement is therefore necessary whereby the centres of traditional oriental studies, while remaining distinct and undisturbed, should yet be brought into relation with the universities, while at the same time oriental studies on more modern lines are also cultivated in the universities. An arrangement of this kind seems to be practicable, though, owing to existing differences of organisation, there would have to be some variation of treatment in regard to Sanskritic studies on the one hand, and Islamic studies on the other.

34. Our recommendations for dealing with this difficult problem are as follows :—

Chapter XLII, paras. 2-3.

(*lxv*) The Sanskrit College, Calcutta, should be reorganised in three sections: (*a*) a high school and intermediate college which would take over the work of the present intermediate classes, as well as the 'high' classes of the high school course, but would throughout lay special emphasis upon Sanskrit; (*b*) a constituent college of the Teaching University, arranged to accommodate, say, 500 students; to this college should be attached the university chair of Sanskrit and the chair or readership in Pali, and its students should profit by the instruction of the *pandits* in the neighbouring *tôl* department; this college would naturally be the principal centre of teaching in an honours school of Sanskrit; (*c*) a *tôl* department which would work, as now, in connexion with the Sanskrit Association and have no direct connexion with the University. These three institutions should be housed in separate buildings side by side, on the site of the existing Sanskrit College and the Hindu School; the library should be available for the use of all three. They should have distinct governing bodies, which would be in relation, respectively, with the Board of Secondary and Intermediate Education, with the University and with the Sanskrit Association; but care should be taken to ensure that there were common elements in all three governing bodies.

Chapter XLII, para. 4.

(*lxvi*) Students of the *tôl* department of the Sanskrit College, if they pass the title examination, and are adequately qualified in English, should be encouraged to pursue their studies in western aspects of their subjects without going through the high school and intermediate course; and for this purpose the University should institute a diploma, or possibly a degree, for such students, the course of study for which should include such subjects as comparative philology and archæology.

Chapter XXXIII, paras. 98-108

(*lxvii*) In regard to higher Islamic studies, we have already recommended that a department of Islamic studies

giving in the first instance a degree of B. I. should be organised in the University of Dacca on the lines defined by the original Dacca University Committee, as the culmination of the reformed madrassah course, and that the first two years of the proposed course should be conducted in the Dacca Madrassah, and possibly also in one or two other madrassahs; we have further suggested that an alternative or modified course (including elementary science, and more nearly approximating to the proposed courses of the intermediate colleges, while still retaining essential Islamic studies), might be gradually introduced in these madrassahs, and might lead up to a degree of B. A. in Islamic studies, treated on modern lines. Chapter XLII paras. 12-25.

(*lxviii*) The Anglo-Persian department of the Calcutta Madrassah should be organised as a distinct high school and intermediate college. Chapter XLII, para. 16.

(*lxix*) In Calcutta we have recommended the establishment of an Islamia College as a constituent college of the Teaching University; to this college chairs or readerships of Arabic, Persian and Islamic history should be attached, and it should become the chief centre of instruction for an honours course in Arabic and Persian. For the purposes of this work, the co-operation of eminent *maulvis* from the Calcutta Madrassah should be invited, and courses given by them either in the Madrassah or in the Islamia College should be recognised by the University for these purposes. Chapter XXXIV, paras. 174-176. Chapter XLII, paras. 17-18.

(*lxx*) Students following the traditional course in Calcutta should be encouraged, without leaving the Madrassah, to take up, after passing the senior madrassah examination, special courses for a diploma, or possibly a degree, instituted by the University. Part of the instruction for this might be given in the Islamia College. Chapter XLII, paras. 27-28.

(*lxxi*) With a view to encouraging a more serious and scientific study of the vernaculars chairs or readerships in Bengali, Urdu and other vernaculars should be established in the University; and the literature and philology of the vernaculars should be introduced among the subjects Chapter XLII, paras. 9-11.

which students are permitted to offer both for pass and for honours degrees.

Recommendations regarding professional and vocational training.

35. We have been deeply impressed by the general disregard among university students in Bengal of the possibility of finding careers in practical—professional and technical—work, other than law and (to a less extent) medicine; by the deficiency of opportunities for obtaining training for such careers, and by the consequent overcrowding of courses of purely literary study. This disregard has its roots in historical and social facts which especially affect the classes from which the bulk of the students are drawn. But it must be amended; and any scheme of educational reform which does not place in the forefront the need for such an amendment must fall short of the country's needs.

Chapter II.

Chapter XXVI, paras. 31-39 and 44-68.

36. The strong hold which the University and its courses possess upon the minds of the educated classes in Bengal has led to the suggestion that if only the University offers degree courses and examinations in practical and technical subjects the prejudice against careers of this type will be overcome. There is something to be said for this view, and undoubtedly action ought to be taken by the universities, and will have a useful influence upon opinion. But in this sphere even more than in others, it is training above all which is needed, and as training is costly and demands elaborate equipment in nearly all vocational subjects, no course of study should be defined until there is a responsible assurance that the necessary provision of teaching and equipment is forthcoming. And unfortunate results may follow, and the whole movement towards practical careers suffer a check, if men are turned out in large numbers with an equipment of a kind for which there is very little demand. There is a real danger in the idea that, if an examination is provided and a degree course defined, all that is necessary is done.

37. But the provision of courses of study by the University, even on the most adequate scale, is not enough. Degree courses in technical and professional subjects, other than those for the established professions of medicine and law, are required by a comparatively restricted number of persons even in highly industrialised countries. The highly trained scientific experts whom the industries of a country can absorb—and it is only with the training of such that a university should be concerned—

must always be relatively few in numbers. On the other hand, industry, especially in a country where it is just entering upon a period of expansion, needs a very large number of men who are intelligent and educated, and whose training has given them some introduction to the sciences at the base of their calling but who cannot be called scientific experts. The need for such men is probably the greatest need of to-day in Bengal; though the others also are needed. And from this point of view the system of intermediate colleges with their varied courses—each with some vocational bias though still general in character—must be of very great value. They will be of value also in providing students with a more efficient preliminary training, not only for technical courses of study, but also for the older professional courses. They represent, in short, the essential foundation of a new and sounder system of training. Chapter XXXII. paras. 31-47.

Law.

38. The system of training in law is of recent institution, and seems to be working well. Nor can it be said that there is such a paucity of lawyers in Bengal as to make it urgent that measures should be taken to increase the supply. In this field, therefore, we have few changes to suggest. Chapter XXII.

(*lxxii*) In order to ensure a more adequate treatment of the more purely academic branches of legal studies, the Tagore Chair of Law (hitherto devoted to special lectures) should be used to secure the services of a permanent professor in jurisprudence or Roman law; and it would be desirable that other full-time chairs or lectureships should be established if funds become available. Chapter XLV, para. 6.

(*lxxiii*) The course for the degree of B. L. should remain a post-graduate course extending over three years. Students should be permitted, during the course of study for a degree in law, simultaneously to undertake a course in another Faculty. But special care should be taken to exact the full measure of work in both Faculties. Chapter XLV. para. 7.

(*lxxiv*) The existing Law College at Dacca should be developed into a distinct faculty of law, organised as a department of the Dacca University. The Faculty should include at least one high court judge together with representatives of other branches of the profession Chapter XXXIII, paras. 110-114.

and in order to enable these members to be present at its meetings, it should be empowered to meet, when necessary, in Calcutta.

Medicine.

Chapter XXIII.

39. The system of medical training provides for two classes of students, those who aim at a university degree, and who are provided for in two colleges, one Government and one private (both in Calcutta) and those who aim only at the licence granted by the State Medical Faculty of Bengal, and are given a shorter and less elaborate course in institutions attached to hospitals at Calcutta and Dacca, and known as medical schools. The demand for admission to the medical colleges and the degree courses is greater than the accommodation. On the other hand, the existing need in Bengal is greatest for medical men who will be willing to practise in the rural districts, which experience shows that graduates are reluctant to do. The provision made for medical training in the Calcutta Medical College seems to us to be sound, though hampered by various difficulties and by the lack of organised teaching in various special subjects. The medical schools also (which are wholly unconnected with the University) are doing useful work, but the course is rather a slight one in some respects, and the gap between the two branches of the profession is too great. We do not however suggest any immediate changes in this regard. Our recommendations regarding medical training (in so far as it is affected by our general proposals) are as follows :—

Chapter XLIV, para. 45.

(*lxxv*) The Calcutta Medical College, and also (if it is able to fulfil the conditions) the Belgachia Medical College, should become constituent colleges of the Teaching University.

Chapter XLIV, paras. 5-7. Chapter XXXII, paras. 31-32.

(*lxxvi*) The standard of entrance to the Medical Faculty, as to other Faculties, should in future be that of the proposed intermediate college examination, one form of which should be adapted to the needs of medical students, though entrance should not be restricted to students who have taken the examination in this form.

Chapter XLIV, paras. 4-17.

(*lxxvii*) Training in the preliminary sciences (physics, chemistry, botany and zoology) should be provided as soon as possible elsewhere than in the medical colleges. It may be found possible to afford a sufficient training in selected

intermediate colleges. But this could not meet the whole need, and provision should be made in these subjects by the University of Calcutta and its constituent colleges.

(*lxxviii*) Preliminary scientific training for women medical students should be made, if possible, by co-operation among the women's arts colleges, and the scheme of training should hold in view the requirements of the Lady Hardinge Medical College for Women at Delhi, as well as those of the Calcutta University. Chapter XXXVI, paras. 22-23.

(*lxxix*) The Principal of the Calcutta Medical College should be paid a salary sufficient to exempt him from the necessity of undertaking private practice. Chapter XLIV, para. 41.

(*lxxx*) A well equipped department of public health should be established in the Calcutta Medical College. Professorships should be created in this college in (*a*) pharmacology, (*b*) mental diseases, (*c*) dermatology, and syphilology, (*d*) diseases of the ear, nose and throat; and lectureships in (*e*) X-rays and (*f*) electro-therapy. There should also be a chair of the history of medicine; this might be a chair in the University. Chapter XLIV, paras. 18-32.

(*lxxxi*) In view of the absence of organised and systematic training in dentistry, it is desirable that a department or school of dentistry should be established as soon as possible in the Bengal College of Medicine. Chapter XLIV, para. 33.

(*lxxxii*) A medical college at Dacca, preparing students for degrees in medicine, should be established in due course, when adequate arrangements can be made. Chapter XXXIII, paras. 115-122.

(*lxxxiii*) A much needed expansion of medical training of the type given in the medical schools would be facilitated by the use of some of the intermediate colleges to provide the necessary training in the preliminary sciences. Chapter XLIV, paras. 46-52. Chapter XXXII, paras. 31-32,

Engineering.

40. The training of skilled engineers is one of the most important services which the universities have to render in an industrial society; and in view of the coming development of Indian industries it is to-day more important than ever. The Civil Engineering College, Sibpur, has hitherto devoted itself mainly to the production of civil engineers; but if industrial development proceeds Chapter XXIV.

apace, there is likely to be a large and growing demand for mechanical engineers. One of the chief obstacles in the way of this work has hitherto been the aversion of students of the *bhadralok* classes from any avocation involving manual work; and in this sphere the Engineering College has in fact hitherto confined itself to training men for subordinate branches of the profession, and has made no attempt to provide training of a university level. During sixty years the Engineering College has done good work in difficult circumstances; but in the judgment of the Indian Industrial Commission, as in our own, the time has come for a reconsideration of its range, methods and organisation. Our recommendations on this head necessarily overlap those of the Indian Industrial Commission and the Public Works Department Reorganisation Committee, with which they should be compared. We add certain recommendations regarding the kindred subjects of mining and architecture.

Chapter XLVI, paras. 43-71.

(*lxxxiv*) The Civil Engineering College, Sibpur, should be a constituent college of the University of Calcutta, and should be placed under the direction of a governing body created by charter. The governing body should include representatives of Government, of the teaching body of the college, of the engineering profession, and of the industrial interests concerned. It should receive a stated annual allocation from Government, and should, subject to audit, be allowed wide latitude in expending this grant, and in obtaining funds from private sources, especially from the industrial interests served by the college. It should have power to make appointments to the staff and to control the curricula of the college.

Chapter XLVI, paras. 33-34.

(*lxxxv*) The college should gradually devote itself wholly to higher or university work, and the lower or technical classes now accommodated in it should be provided for elsewhere.

Chapter XLVI, paras. 16-25.

(*lxxxvi*) Training up to the degree standard in mechanical engineering should be given at Sibpur, and the necessary additions to the staff and equipment of the college should be provided for. Training up to the same standard in electrical engineering might also be provided later.

Mining.

(*lxxxvii*) The course of study in mining should be maintained and extended at Sibpur. Chapter XLVI, paras. 26-32.

Architecture.

(*lxxxviii*) In view of the absence of organised provision for training in architecture, it is desirable that a scheme of training in this subject, which might lead up to a degree, should be organised in Calcutta. This could probably best be done at Sibpur, possibly with the co-operation of the School of Art. Chapter XLVI, paras. 35-40.

Agriculture.

41. In spite of the supreme importance of agriculture as the predominant economic interest of Bengal, there has hitherto been no attempt to provide organised instruction in agriculture of a university grade. Government has maintained a number of experimental farms in the Presidency; the agricultural college at Sabour was designed to serve the needs of Bengal as well as Bihar, though, under the terms of the Patna University Act, it is precluded from having any connexion with the University of Calcutta. The methods of cultivation and of land-tenure prevalent in Bengal do not lend themselves to any considerable employment of highly qualified scientific experts, such as university graduates in agriculture ought to be. The kind of training for which there is a widespread need is of a more elementary kind, and is such as we hope may be afforded in the agricultural course we have proposed as an element in some of the intermediate colleges. Nevertheless we are convinced that there is need for the service of a limited number of highly trained men, and that it is the duty of the University to provide them. But since the number of posts likely to be available will for a long time to come be very small, and since a man trained as an agricultural expert is apt to be regarded as of no use for any other purpose, we feel that the greatest care should be taken (*a*) not to admit more than a reasonable number of students, and (*b*) to provide for them a scheme of training which would fit them for other cognate occupations should a purely agricultural calling not be available.

Chapter XXV.

Chapter XXXII, paras. 34-35

42. Our recommendations on this head are as follows :—

Chapter XLVII. paras. 1, 3-5.

(*lxxxix*) There should be a department or school of agriculture in the University of Calcutta, organised at first on modest lines, and making use so far as possible of existing resources. It should have attached to it a demonstration and experimental farm in the neighbourhood of the city. It should work in close relations with the Government Institute of Agriculture which it is proposed to establish.

Chapter XLVII, paras. 2-8.

(*xc*) If and when provision has been made for teaching in Calcutta, for an experimental farm, and for opportunities of practical training at the proposed institute, the University should establish a degree course suitable for the training of scientific agricultural experts. The first three years of this course should lead up to a special form of the B. Sc. degree. Thus qualified the student should be admitted for a period of one or two years' practical work in the proposed Government Institute of Agriculture; after which, if his work was certified as satisfactory, he should be eligible for the degree of Bachelor of Agriculture.

Chapter XLVII, para. 9.

(*xci*) Until the opportunities of suitable employment expand, provision should be made only for a small number of students.

Chapter XXXII, paras. 34-35.

(*xcii*) A more elementary introduction to agricultural science, suitable for zamindars' agents, teachers in agricultural districts, officers of co-operative societies, etc., should be given in selected intermediate colleges.

Technological sciences.

Chapters XXVI and XLVIII.

43. We regard it as an important and indeed a necessary function of a university, situated in a great industrial and commercial city like Calcutta, to include applied science and technology in its courses and to recognise their systematic and practical study by degrees and diplomas. This function must not be confused with that of training foremen and other servants of the scientific industries. The latter is the business of technical institutions of another grade, with the work of which the courses of the University should be so far as is necessary correlated. For example, the University of

Calcutta, in the development of its courses of training in applied science, should co-operate with the proposed Calcutta Technological Institute, especially in the use of workshops for the practical training of the students. We hope that private benefactors and the industries concerned will give generous help to the University of Calcutta in its new technological departments, which should not be started until the means of providing adequate courses of scientific and practical instruction are assured. In view of the great expense of providing these courses and of the comparatively small number of scientific experts whom the industries of India are for the present likely to absorb, care should be taken to avoid any wasteful multiplication of institutions giving technological training in the same branch of industry. In this branch of education there should be a division of labour according to the industrial needs of the different provinces of India. While therefore independent action on the part of each university should be welcomed when private liberality enables it to develope this side of its work in the interest of the district which it immediately serves; and while the provincial Government should be free to develope technological training for the assistance of any industry which it regards as important or promising; the Government of India should have an organisation (as is proposed by the Indian Industrial Commission) for giving guidance and advice in this matter from an all-India standpoint, and should administer funds out of which it may give special grants-in-aid to advanced technological training and research at the universities and elsewhere. The Government of India will thus be in a position to exert considerable influence in securing concerted action among the universities in regard to technological training. Chapter L, paras. 46-49.

44. Our further recommendations are as follows :—

(*xciii*) Calcutta is a suitable centre for the advanced training of students to meet the needs of the leather industries, the chemical industries (including dyeing), the oil and fat industries and some branches of the textile industries. In several of these departments, the work of the university technological laboratories should be associated with that of the Engineering College at Sibpur. So far as possible, the university departments of technology and applied science should be placed in the neighbourhood of the University College of Science, should be attached Chapter XLVIII, paras. 5-15.

to it administratively and should come under the general supervision of its governing body. To each department of technological study there should be attached an advisory committee which should include leading representatives of the industries concerned. Within defined limits the principal university teachers in the technological departments should be permitted to engage in private practice.

Chapter XLVIII, para. 8.

(*xciv*) At Dacca the intermediate college should provide scientific and practical instruction preparatory to engineering and agriculture; and the technological research work entrusted to the scientific laboratories of the University should be co-ordinated as far as possible with corresponding investigations conducted in the university laboratories in Calcutta.

Chapter XXXII, para. 33, and Chapter XLVIII, para. 4.

(*xcv*) The reform of the intermediate courses is necessary for the development of a general scheme of technological training; and the new intermediate colleges should therefore be established as quickly as possible, because their work will serve as a foundation for the teaching of applied science at the University.

Commerce.

Chapter XXXI, paras. 0-70

Chapter XXII, paras. 2-47.

Chapter LVIII, paras. 3-32.

45. In the training of students for a commercial career the University has a very important but limited function. In all countries the vast majority of those who go into commerce do so at an earlier age than that of graduation at the University. It is at this earlier age therefore that preliminary training for commerce can be most usefully given. For this among other reasons we have recommended the reform of the high schools. Bengal needs modern secondary education. The high school certificate, which a boy will gain after receiving a good general education up to 16 or 17 years of age, will be a valuable credential to those who wish to enter upon commercial life immediately after leaving school. But even more useful as a preparation for business will be the training given at the intermediate colleges. We have recommended that these colleges should provide a practical but not narrowly specialised course which will give an excellent training to young men who intend to enter commercial life at 18 or 19 years of age. In addition to this we propose that there should be classes in commercial subjects at

technical or commercial institutes aided by the Department of Public Instruction and the Department of Industries. Many of these classes should be held in the early morning or in the evening after office hours. Lastly there is need for advanced teaching in banking, insurance, actuarial science and other subjects bearing upon the commercial interests of the country. In this, the University should take an increasingly important part.

46. It is necessary to guard against the idea that a specialised commercial degree course at a university is likely to be found by any large number of students an *open sesame* to well paid and responsible employment by business firms. The ordinary student, after taking as an undergraduate a degree course in commerce, would find himself handicapped by beginning his commercial career some years later. His difficulties would be the greater if he had acquired inappropriate habits of work, and if he resented having to begin at the bottom of the ladder, below many junior to himself in age. A university cannot teach the practical side of business. A degree in commerce does not necessarily connote commercial aptitude. That must be tested and developed in the office and the counting house. And (save in very exceptional cases) this test must be applied under the ordinary conditions of commercial employment. Part-time attendance at an office, however ingeniously dovetailed into a full undergraduate course, cannot be so organised as to provide for any large number of students an all-round, practical training in business methods. Even less practicable would it be for the University to examine the work done by the student in the office of a business house, and to pronounce upon its value as part of the qualification for a degree.

47. Nevertheless the University can give a useful training in the sciences which lie at the basis of commerce. But the students who undertake such a course for their degree must be prepared to recognise the fact that, when at last they enter upon employment in a business house, they will have to start upon the same terms as those offered to youths much younger than themselves and not possessing a university degree. They must face the fact that they will have to trust for their promotion to their own ability and trained capacity, not to the academic title which they possess. For students of a special type a degree course in commerce at the University may be an admirable preparation for a business career. But students of this type are not very numerous.

Chapter XLVIII, para. 32.

48. Our further recommendations regarding university courses in commerce are as follows :—

(*xcvi*) The University of Calcutta should have power to institute, when it thinks fit, a Faculty of Economics and Commerce and to confer degrees and diplomas in commercial subjects. An advisory committee on higher commercial education should be attached to the department of economics.

(*xcvii*) The University should be prepared to provide courses of instruction in banking, accountancy, insurance, actuarial science, industrial history, etc., designed especially for students who are already engaged in business, and at hours convenient for their attendance. Admission to these courses should not be limited to persons who have passed the entrance examination of the University.

Medium of instruction.

Chapter XVIII

49. We have analysed the great mass of evidence on the medium of instruction and have shewn that the divergent views expressed cut across the divisions of race, religion, nationality and occupation.

Chapters VIII, XVIII and XLI.

We have dealt with the psychological problems of mind-training involved in the use of the mother tongue and of the English medium and have suggested that the educated public of Bengal, like many other countries within the British dominions and elsewhere, will probably wish to be bilingual. We regard reform both in the teaching of the vernacular, which should be placed on a scientific basis, and in the teaching of English, as essential, and we have made *inter alia* the following recommendations :—

Chapter XLI, para. 17.

(*xcviii*) The vernacular should be used in general throughout the high schools, except for the teaching of English and of mathematics, which, during the last four years of the course, should be conducted in English.

Ibid. para. 18.

(*xcix*) At the 'high school examination' (corresponding to the matriculation) candidates should be permitted to answer either in the vernacular or in English, except in the subjects of English and of mathematics in which English should be compulsory.

(*xc*) The medium of instruction and examination in the intermediate colleges and in the University should be English (except in dealing with the vernacular and the classical languages). Chapter XLI para. 25.

(*ci*) Phonetic methods should be employed in the teaching of spoken English and there should be a *viva voce* test in English both at the intermediate college examination, and at the university examinations in that subject. *Ibid*, para. 31

(*cii*) In the University a distinction should be made between the teaching of English for practical and for literary purposes; teaching of both kinds should be available for all students; but a uniform course in English literature should not be a compulsory examination subject for all students in the Faculty of Arts. Chapter XXXIV, paras. 44-46. Chapter XLI, paras. 32-42.

(*ciii*) The scientific study of the vernacular should be encouraged in the University. Chapter XLII, paras. 9-11.

(*civ*) To relieve Muslim students from an excessive burden of language study, Musalmans offering Bengali as a vernacular should be permitted to take Urdu in certain examinations in the place of a classical language. Chapters XXXI, XXXII and XXXIII.

Examinations.

50. We have pointed out that the examination system of Calcutta is probably the largest university examination system in the world. In 1918 the University examined nearly 32,000 candidates. Chapters XVII and XL.

51. We have analysed the comprehensive evidence dealing with this system, by which education in Bengal is now dominated. We have pointed out that the university degree is practically the only portal at present to all careers in Bengal and hence that examination reform is a necessary condition for the reform of education. Apparently unimportant details of the examination system profoundly influence the preparation of the students. Thus the mechanical system of marking, devised to secure uniformity of treatment, encourages pure memorisation at the expense of intelligence and tends to the deterioration of mental efficiency throughout the schools and the University. We have suggested that the purpose of the various examinations should be more clearly defined, that the examinations should be both designed and conducted with such purpose clearly in mind. We have made a number of specific recommendations in regard to the conduct of examinations; but

we think that the adaptation of examinations to their purpose and their conduct on rational principles cannot be carried out by mere regulations but must be left to the future university authorities as an important part of their duties. We hope that the Boards of Examination recommended by us will serve as the auditors of the examination system and as the conscience of the universities in this matter; they will publish typical specimens of complete examination answers from time to time and constantly bring before the universities proposals for the removal of defects in the examination system and for the introduction of new and improved methods. We also have hopes that certain subjects may be studied by students without their being required to submit themselves to any examination therein, so that a portion of the curriculum may be entirely freed from examination pressure.

The universities should also welcome at certain of their courses, where accommodation allows, members of the general public qualified to profit by it. Such auditors would be subject to the ordinary university regulations and would pay a suitable fee.

Chapter XL, paras. 3-12.

52. Amongst our recommendations of detail are the following :—

(*cv*) In order to maintain continuous watchfulness upon the methods and use of examinations, to ensure that they are not so mechanically conducted as to exercise a harmful influence upon teaching and study, and to make certain that the purposes with which each examination is devised are held in view, and are fairly realised, there should be in each university a small Board of Examinations, whose functions should not be executive but primarily those of criticism and suggestions.

Transitional measures.

53. The reforms which we have proposed are of a fundamental character, both from the point of view of administration and of education *per se*. We have made it clear that we think the educational reforms which we regard as necessary cannot be carried out without the administrational reforms. But the question may be raised as to whether it is necessary or possible to carry out the whole of the administrational changes simultaneously. In our view, such simultaneous changes are both desirable and feasible, provided that the funds required are available and provided also

that there is a sufficient *personnel* available to carry out the heavy work of the period of transition.

54. The changes fall into three main categories: (1) a change in secondary and higher secondary education, involving the setting up of the Board of Secondary and Intermediate Education; (2) the creation of the University of Dacca; (3) the reconstitution of the Teaching University in Calcutta and the establishment of a new organisation for the mufassal colleges.

55. We have said that these changes could be effected simultaneously, but we do not wish that term to be interpreted too strictly. We have borne in mind that in a large class of legislative measures it is found both convenient and necessary to allow a preparatory period to elapse between the passing of an Act and the 'appointed day' on which it comes into force; and that in the case of a complex measure it may be desirable to make different portions of it come into force on different days; and even to allow of further elasticity by remitting the fixing of such 'appointed days' (within limits defined by the Act) to a specified administrative authority. When we say that the administrative changes should take place simultaneously we mean that they should be authorised by a single Act, or by one or more Acts passed simultaneously, and that the 'appointed days' fixed in, or authorised by, those Acts should be reasonably close to one another.

56. We think it possible however that both for financial and for administrative reasons Government might desire the transition to be spread over a longer period than that which we have contemplated, and that we ought therefore to indicate the order in which the three changes proposed should be carried out.

57. We think there can be no reason for delay in setting up the Board of Secondary and Intermediate Education and in making provision for the reform of secondary and intermediate education, which, as we have said repeatedly, we regard as the very pivot of the whole reform.

58. We have also urged that there should be no further delay in creating the University of Dacca. It is unnecessary to advance further arguments on either of these points.

59. But the case of the University of Calcutta is different and more complex. Apart from any financial and administrative difficulties which might be felt by Government in introducing immediate changes, it may be urged with some reason that the

University should not be reconstituted until the new intermediate system comes into working order.

60. But if the Secondary and Intermediate Board and the University of Dacca are created at once, while the reconstitution of the University of Calcutta is postponed, that postponement may take place in three different ways, which would give rise to three very different situations.

(*a*) The legislation for the reconstitution of the University of Calcutta might be postponed purely and simply, the Government of India limiting themselves to a statement of their intentions in regard to university policy. But such postponement could not leave the Universities Act and the constitution of the University of Calcutta entirely untouched; for although the University of Dacca might be created (as was the University of Patna) without direct amendment of the Universities Act, we think some direct amendment would be necessary to provide for the transfer of the power of recognising high schools and intermediate courses from the University of Calcutta to the Board of Secondary and Intermediate Education. Such amendment would probably give rise to immediate difficulties. For it would not be easy to limit the amendment of the Act to this single point. Government would inevitably have pressed on it, with reason, a number of minor amendments; it might find itself involved in controversy on innumerable points of detail; and yet reforms of detail, desirable in themselves, might, if carried out, only block the way to fundamental reform and make the eventual task of the legislature more onerous. Even more serious, perhaps, is another objection. The colleges would find their arrangements upset by the removal of their intermediate students without finding any authority in a position to give them either definite assurances as to their future, or assistance in making the necessary provision for their higher work. Thus there would ensue a trying period of uncertainty and unrest, with few compensating advantages.

We think it clear therefore that the amendment of the Universities Act should not be made piece-meal, but that Government should decide forthwith on its university policy as a whole.

But such a decision would still leave open two plans, (*b*) and (*c*) below, for bringing that policy gradually into operation.

(*b*) The Act reconstituting the University of Calcutta might be passed simultaneously with the legislation bringing into exist-

ence the University of Dacca and the Board of Secondary and Intermediate Education; but the entire operation of the Act other than that relating to secondary and intermediate education might be suspended for some years. This procedure would obviate the disadvantages of piece-meal legislation, and would create a more clearly defined situation. During the period before reconstitution a good deal might no doubt be done by Government and by the University, especially if it had a salaried whole-time Vice-Chancellor, to prepare for the new order of things. But it may be doubted whether the existing organisation could be expected to carry out such preparations with enthusiasm; and we fear that this arrangement would not lighten the labours of the Executive Commission, the appointment of which (though deferred for a time) would ultimately be as necessary as if the University were reconstituted at once.

(c) The third course which we regard as possible would bring the Executive Commission into existence simultaneously with the Board of Secondary and Intermediate Education and the University of Dacca; but the Executive Commission would have more limited powers than those which we have proposed in Chapter XXXVII, and the present Syndicate and Senate would be left to carry on the routine business of the University during a preparatory period. The Executive Commission would negotiate with the colleges in regard to their needs under the new system; it would advise Government in regard to necessary grants for the colleges and for the creation of fresh teaching on the lines indicated in our recommendations; it would deal with the great problems of the residence and health of students and with the provision of sites for hostels; and finally it would advise Government as to the best date for bringing the Act into complete operation. Very soon after that date it ought to be possible for the Commission to transfer its powers completely to the new governing bodies of the University.

61. Like the other schemes for postponement, this scheme would spread the financial liabilities of the Government over a longer period, and would diminish the pressure of the change both upon the administrative officials of Government and upon the Executive Commission itself. The chief objection that we anticipate to the scheme is that there might be friction between the Executive Commission and the older university authorities. But the University Act would necessarily delimit the powers of the Commission

and of those authorities in such a way as to prevent formal clashing; and we hope that in more informal matters friction might be avoided by the presence of the Vice-Chancellor and of other members common to the Executive Commission and to the Syndicate.

Chapter XXXI, paras. 29-30. 62. We may point out, that if, contrary to our expectations, the University of Calcutta is reconstituted before the creation of the Board of Secondary and Intermediate Education, it will be necessary to set up within the University provisional machinery to deal with the schools.

63. We desire to make it clear that certain reforms in the University of Calcutta ought not to be postponed whatever scheme be adopted; namely, the provision of further residential accommodation; the provision of a teacher's training department and a department of education; the provision of additional accommodation for teaching; and the provision of measures for supervising and improving the health of the students.

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G. ANDERSON, *Secretary.*

CALCUTTA,
The 18th March 1919.

* Signed subject to the two appended notes.

J. W. G.

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